

DEPARTMENT NEWS

by Michael Huggins

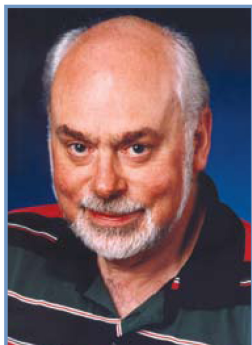
Since our last newsletter, the Department has experienced tremendous growth in enrollment and acquired major new instrumentation despite having sustained significant budget cuts. In the fall 2009 semester, there are ~130 Chemistry majors at UWF, and we have 310+ students enrolled in three sections of General Chemistry and 130+ students taking Organic Chemistry I. In addition, Dr. Royappa has 30 students taking Physical Chemistry I. Overall enrollment in Chemistry is up 28% for the fall semester, as compared to fall 2008. We are all very excited about the growth in enrollment and the potential this brings for expansion in other areas – increase in research activity, addition of new faculty, and the potential to expand into targeted M.S. degree programs.

The department was fortunate to obtain several new instruments and extensive glassware & equipment, often resulting from unfortunate circumstances. Air Products' Pace facility shut down its pilot plant operation in late spring, and they donated several truckloads of equipment, instrumentation, and glassware to the department. Our new instrument technician Michael Cochran has been kept very busy setting up the new instruments with the assistance of Dr. Fred Hileman.

- Finnigan GCQ GC-MS (Air Products)
- Several gas chromatographs (Air Products and Fred Hileman)
- Perkin Elmer TGA/DTA (New Purchase)
- Perkin Elmer UV-Visible Spectrophotometer (New Purchase)
- Two Perkin Elmer Graphite Furnace AA Spectrophotometers (TestAmerica)
- Varian Inductively Coupled Plasma Optical Emission System (ICP-OES) (Pall Corporation)
- Varian Inductively Coupled Plasma Mass Spectrometer (New Purchase)
- Hewlett-Packard HPLC (Air Products)
- Two Finnigan Mass Spectrometers (Fred Hileman)

Department News
continued on page 7

WILLIAM D. SMART SEMINAR SERIES IN CHEMISTRY – DR. FRASER STODDART



The Department of Chemistry was treated to a wonderful visit from Sir Fraser Stoddart as the second speaker in the William D. Smart Seminar Series in Chemistry. Dr. Stoddart is currently the Board of Trustees Professor at Northwestern University. Stoddart is one of the few chemists of the past quarter of a century to have created a new field of organic chemistry – namely, one in which the mechanical bond is a pre-eminent feature of molecular compounds. He has pioneered the development of the use of molecular recognition and self-assembly processes in template-directed protocols for the syntheses of two-state mechanically interlocked compounds (bistable catenanes and rotaxanes) that have been employed as molecular switches and as motor-molecules in the fabrication of nanoelectronic devices and NanoElectroMechanical Systems (NEMS). During his visit, Dr. Stoddart presented a general talk entitled “Mingling Art with Science” to a packed

Smart Series
continued on page 7

2009 Newsletter

in this issue

Department News

page 1

Chairman's Letter

page 2

Faculty Updates

page 2

Giving To The Department

page 4

Scholarships in Chemistry

page 4

Chemistry Supporters

page 5

Pall Corp Chemistry Scholarship

page 5

Internship with the Department of Energy

page 6

Project SEED

page 6

UWF Alumni Developing New Scientific Methods

page 7



University of
West Florida
Chemistry Department

CHAIRMAN'S LETTER



Despite the budgetary issues, it has been another great year in the chemistry department at UWF. We continue to grow our enrollment, increase our research productivity, and improve the quality and diversity of the educational experiences for our students. Bringing Dr. Hileman on board as the Director of Mass Spectrometry, a research position, has added to our research capabilities as well as our ability to meet the needs of local and regional chemical companies for analytical analysis services. We have added additional adjunct faculty to assist in the delivery of the chemistry courses, especially in the lower division laboratory classes. Currently, we have eight adjunct faculty teaching a wide array of courses.

The chemistry students have also been successful at extraordinarily high levels of academic performance as well as outreach. The Chemistry Club (Student Affiliates of the American Chemical Society) has received recognition for their activities from the American Chemical Society each of the last three years (two Honorable Mentions and one Commendable Chapter Awards). The students are always willing to assist with outreach to area school children, provide free tutoring to UWF students, and much more. Over the past year, our graduates have been accepted into graduate programs in chemistry at Florida State University, the University of Tennessee, the University of Oregon and others, entered medical school at Florida State University, and began Pharm.D. programs at

the University of Florida and Auburn University. In addition, many have gone directly into the chemical industry with Pall Corporation, Pegasus Labs, and elsewhere.

The Department of Chemistry is entering into an alliance with the Department of Environmental Studies to form the Division of Natural Sciences. The exact details of this alliance are still being worked out, but we are optimistic that the partnership will open new avenues for growth and research collaborations. Specifically, we are currently discussing the development of an environmental chemistry track in the Masters Program in the Environmental Studies Department.

At the University level, Dr. Judy Bense has been appointed the permanent UWF President after a very successful first year in the interim role. Under her leadership, we have undertaken a movement to recruit top quality students from the entire state via an aggressive marketing campaign, by offering scholarships and building new dormitories (to be completed by Fall 2010). In addition, there are discussions on improving the athletic program by potentially moving to Division I and adding football. No final decisions have been made, but everyone is excited about the potential impacts of these changes.

FACULTY UPDATES



The department welcomes Dr. Fred Hileman to the faculty as a research associate in CEDB and an adjunct professor in Chemistry. Fred was born and grew up in Waterloo, Iowa. He attended the University of Northern Iowa and graduated with a BA in Chemistry in 1968. He was then offered a Graduate Fellowship at the University of Florida but this was during the Viet Nam conflict, so he was forced to enter the military instead. He was stationed at Wright Patterson Air Force Base in Dayton, Ohio and served in the Chemistry Division of the Aerospace Research Laboratories where part of his responsibilities was the analysis of lunar sample's chromium level. He also worked on and received an MS in Chemistry from Wright State University. After an honorable discharge from the military, he went to the University of Utah to study with Professor Jean Futrell in the area of mass spectrometry. He received his PhD in 1977 and after a two year Research Professorship at Utah left to join Monsanto where he worked in nearly every division of the company over a 30 year period. In the spring of 2009, he and the company (now Solutia) parted ways and he was able to come to UWF, where we are delighted to have him. Fred has been married to his wife Debbie for 41 years and they have two children, Monica and

Ryan. Monica is married with four children and lives in Ft. Collins, Colorado. Ryan is a bachelor and lives on a boat in Guntersville, Alabama.

Dr. Glenroy "Dean" Martin was the recipient of the excellence in undergraduate teaching and advising (EUTA) award and was also nominated for the distinguished teaching award (DTA). He has worked hard to establish his research efforts and was rewarded for it with a number of internal and external grants. He was awarded the 2009 UWF Faculty Scholarly and Creative Activity Grant (\$2000), a Faculty Training Grant (\$2000), and a starter grant (\$5000) from the American Society of Pharmacognosy (ASP). He was also a co-PI on the 2009 Merck/AAAS grant. His undergraduate research student, Scott Shaw, received \$1000 for his Honors Thesis project entitled "The Synthesis and Biotransformation of Formestane." Scott Shaw and Anne Marti were awarded 3rd place in the poster competition at the recent Florida ACS (FAME 2009) meeting in Orlando while Helie Dharia won first place in the local science fair competition in her division. Apart from his being elected to Sigma Xi, the Scientific Research Society, Dean was also the recipient of the D. John Faulkner travel award (\$1000) which he received at the recently attended ASP conference in Hawaii. The results of his research are currently being written up for publication.

FACULTY UPDATES CONTINUED...

Dr. Timothy Royappa continues to set high standards for excellence in teaching. He was elected to the Distinguished Teaching Hall of Fame at UWF at the end of the spring semester. He was elected to the Hall of Fame as a result of receiving the Distinguished Teaching Award three times (1998, 2003, 2009).

Dr. Pamela Tanner continues to coordinate the General Chemistry laboratory program. She has been active in the UWF Center for Teaching and Learning Activities by participating in the Teaching Partner's Program where she was paired with a Biology faculty member to assess and evaluate each other's courses. This was an insightful exercise and has resulted in several positive changes to teaching lecture and lab. She continues to teach the fully on-line Concepts in Chemistry course. The evaluations have been very positive. Many students discover that Chemistry plays a role in their everyday life; it is not a subject to be feared but should be embraced to better inform the student.



We also welcome Dr. Karen Sinclair Molek to the faculty as a visiting professor of Chemistry. She has breathed life into the department with her charm, vitality and snappy dressing. In the spring of 1996 she discovered her love for Chemistry during her first General Chemistry lab class at Mercer University in Macon, GA. (Yes, that's correct - they were on quarters back then, not semesters.) Her love for Chemistry very quickly became compartmentalized while taking Organic Chemistry. On more than one occasion more of her synthesis products ended up on the fume hood than in her round bottom flask. She decided that if she couldn't even keep the product in the flask perhaps she should steer clear of synthesis reactions. This led her to begin exploring other areas of Chemistry where she found electronics, optics, lasers, and more. Experimental Physical Chemistry research solidified her desire to spend the rest of her life pursuing answers to the fundamental questions in Chemistry. In addition to taking classes she taught labs and performed Chemistry demonstrations for inner-city students throughout her time at Mercer. She decided that she loved teaching and watching students "light bulbs" turn on when they grasped a concept in Chemistry, thus she decided to pursue a career in teaching at the undergraduate level. She continued her journey to The University of Georgia

where she performed photodissociation experiments on transition metal gas phase cluster cations. She taught numerous Concepts, General, Honors, and Inorganic labs/classes during her time at UGA. Both she and her husband, Chris, finished their Ph.D.'s in Physical Chemistry at UGA in August 2007. They moved to Fort Walton Beach because Chris received an NRC Post-Doc award at Eglin AFB. To her surprise, she found UWF hidden in Pensacola. She started adjunct teaching Fall 2008 and gladly accepted a Visiting Lecturer position in January 2009. She has enjoyed the faculty and students so much at UWF that her goal is to stick around the department in a more permanent role for years to come.

Dr. Leo ter Haar continues to divide his time between teaching in the Chemistry department and serving as chair of the UWF Computer Science Program. He is also the Director of the School of Science and Technology (SSE) which was founded by four departments in 2005. As of this writing, the new SSE building is open for business. See <http://sse.cs.uwf.edu/>

Dr. Pamela Vaughan was instrumental in the renewal of the Merck/AAAS grant. It will provide funding for undergraduate students through 2012. UWF matched the funding total for the renewal with \$120,000. This grant will be paid over 3 years for joint use with 8 faculty members of the Biology and Chemistry departments. Pam presented her research at the 2009 Florida Annual Meeting and Exposition of the American Chemical Society conference in the Environmental Chemistry section: Photo-toxicity of Various Quinone Compounds. She also had a paper accepted to the Journal of Chemical Education entitled Effects of storage conditions on lycopene stability in tomato extracts, an undergraduate experiment. Co-authors were Dr. Tara Sirvent (Vanguard University) and Amanda Miller (UWF undergraduate). Dr. Vaughan has also assumed a leadership role in the College of Arts and Science Council for the upcoming academic year.

Although they are retired, Drs. Peter Tanner and Jerry Gurst serve as informal advisors to the department and attend various social and professional functions.

Dr. Michael Huggins recently had a paper published in Chemical Communications entitled "Synthesis and molecular recognition studies of pyrrole sulfonamides". The paper was co-authored with three UWF undergraduate chemistry majors. Mike has also been busy presenting the results of his research efforts at several regional universities including the University of Florida, Florida State, Southern Mississippi, Auburn, and others. He and Jerry have also concluded work on a spectroscopy workbook with co-author Dr. David Lightner. The workbook contains ~200 problems containing high-resolution 2-D NMR spectra including gHSQC, gHMBC, NOESY, COSY, and other techniques. Hopefully, the book will appear in print very soon. In addition, Mike and Dr. Royappa were co-PIs on a \$380,000+ Florida Department of Education Teacher Improvement Grant where 31 science teachers Escambia, Santa Rosa and Okaloosa counties are being provided additional content and training in chemistry, physics, and mathematics. Phase I of this grant has been successfully implemented, and we are currently pursuing phase II.



UWF CH

Support The Department

GIVING TO THE DEPARTMENT

We hope that you continue to be proud of the Chemistry Department at UWF. Your continuing assistance will enable us to move forward to the next stage of our development, despite the budgetary issues facing the University. Gifts from alumni and friends help to enhance the quality of our educational programs and enable us to constantly raise our standards of excellence. Since the Department offers only undergraduate degrees in chemistry, all resources have a direct impact on our undergraduate students. Specifically, funds are used in one or more of three target areas and support our teaching and research as well as offer academic enhancements for students and faculty. Every gift is significant and appreciated! In addition, all gifts to the UWF Chemistry Department are tax deductible. The UWF alumni and friends website provides more information on how to make a gift to UWF at <https://secure.uwf.edu/development/giving/online>. Be sure to indicate your gift is intended for the Chemistry Department.

As many of you know, the Department has undertaken an effort to increase the scholarship funds available to our students. Our goal is to increase the percentage of chemistry majors receiving a scholarship as well as the award amount. For the 2009-2010 academic year, only 14% of chemistry students received a scholarship with the average award of \$833 per student. For perspective, the current UWF tuition & fees come to \$140 per credit hour. Thus, the average scholarship award will cover the expenses for only two classes.

Currently, there are two major projects underway. The Founding Chemistry Faculty Endowment is being created to provide scholarships in honor of Drs. Birdwhistell, Chang, Chiu, Gurst, Halpern, and Tanner. We initiated this campaign back in spring of this 2008, and to date we have received \$13,000 in pledges and contributions. The goal is to have \$25,000 in this endowment, and we have until 2012 to reach this level. We must raise a minimum of \$20,000 in order to create the endowed account. For those that have already contributed – THANK YOU!!

In addition, I have been working with several of the local companies in an effort to have them support scholarships for Chemistry Majors at UWF. Most of them benefit from the fantastic products produced by the Department, our well-trained students. Thus far, our proposals have resulted in one new scholarship program – see announcement about Pall Corporation Scholarship. I am optimistic and hope to have additional announcements about corporate sponsored scholarships in future newsletters. From the list of donors, you will see that we are well supported by many corporate donors for various projects, including Project SEED, outreach, instrumentation, and more.

Below you will find some additional information about where financial contributions to the Department are used and needed. In addition to those areas, we are always in need of money for new equipment and instrumentation.

SCHOLARSHIPS IN CHEMISTRY

The Department of Chemistry awarded \$16,000 in scholarships for the 2008-2009 academic year to nineteen undergraduate chemistry students and \$15,000 in scholarships to fifteen students for the 2009-2010 academic year. Jenna Bilbrey, Deborah Barkley, Jennifer Glancy and Patrick Ward have been awarded a Ralph K. Birdwhistell Scholarship. To be selected for this prestigious award, a junior or senior chemistry student must show a potential to make substantial contributions in the field of chemistry. Katie Eanes and Sarah Swiatek have been named Grace Po-Yuen Chiu Scholars. Both scholarships are funded by endowments which honor founding members of the UWF Department of Chemistry.

The Department of Chemistry also awarded scholarships to Korry Barnes, Jennifer Glancy, Billy Carter, Deborah Barkley, Luther McDonald, Melinda Bottenfield, Victoria Walden, Sarah Genet, Sharon Blackwell, Joanna Fielding, Scott Shaw, Giovanni Cuaresma, Rebecca Herman and Rachel Chamberlain. For the 2009-2010 academic year, scholarships were awarded to Korry Barnes, Luther McDonald, Melinda Bottenfield, Scott Shaw, Rebecca Herman, Chelsie Beck, Pauli Bruns, Dolan Dean, Alie Mallet, Erica Pounds, and Cynthia Sports. These students have demonstrated excellent performance in their chemistry programs. The faculty of the Department of Chemistry are very pleased and proud to be able to provide financial support to students pursuing an education in chemistry.

All scholarship awards are supported entirely from the very generous donations of alumni, faculty, and friends of the UWF Department of Chemistry.

Chemistry

2008-2009 CHEMISTRY SUPPORTERS

The Department would like to thank the following alumni and friends for their generous support during the 2008-2009 academic year. This allows us to offer undergraduate student scholarships and awards, in addition to enhancing our instructional and research activities. Thank you very much and we hope you can continue this philanthropic support.

A.I.C.E

American Chemical Society, Pensacola Section

Dr. Mark E. Ates

Atlas Scientific Technologies, Inc.

Dr. Karen F. Barnes

Mr. Wayne F. Beyer, Jr

Mrs. Pamela A. Bilbrey

Dr. Kurt R. Birdwhistell

Mrs. Miriam P. Birdwhistell

Bristol-Myers Squibb Foundation

Dr. Christie G. Brouillette

Dr. Wayne J. Brouillette

Mrs. Elizabeth S. Calhoun, REM, CESM

Mr. Terence L. Chuhay, CHMM

Dr. Allen D. Clauss

Mr. Richard M. Clawson

Dr. John F. Cline

Lieutenant Lucille A. Combs-Walker

Ms. Carrie A. Delcomyn

Ms. Dayle A. Dierks

Mr. Daniel N. Eanes

Drs. Tom Etheridge & Luanne Rolly

Mr. Joseph M. Galant, Jr.

Mr. Andrew P. Geria

GlaxoSmithKline

Mr. Michael S. Greger

Gulf Power Company

Mr. Brian H. Hammonds

Dr. William M. Henderson, DVM

Dr. H.E. Hinderer

Dr. Michael T. Huggins

IMS Health, Inc.

International Paper

Dr. Paul F. Junker

Mr. Dave W. Knothe, CIH

Ms. Kathryn L. Lawrence

Ms. Lorraine M. Lindsay

Dr. Larry Manziek

Mr. Luther W. McDonald, III

Mrs. Jamie L. Moore

Mr. Robert E. Murphy

Mrs. Dana K. Nagel

Pall Corporation

Mr. John H. Post III

Mr. Michael G. Rappa

Dr. Michael D. Reily

Rohm & Haas Matching Gift Program

Dr. Arun T. Royappa

Mr. Alexander R. Saunders II

Dr. Alan K. Schrock

Dr. Cossette J. Serabjit-Singh

Dr. Egbert J. Serrao

Mr. Bruce J. Shavey

Mrs. Susan A. Suhr

Taminco Methylamines, Inc.

Dr. Dean A. Van Galen

Dr. Pamela P. Vaughan



UWF
CHEMISTRY DEPARTMENT



PALL CORPORATION ESTABLISHES CHEMISTRY SCHOLARSHIP

The Department of Chemistry at the University of West Florida announces the creation of the Pall Corporation Scholarship in Chemistry. This annual scholarship, which has an emphasis on academic performance, will award \$1500 each to students from Escambia and Santa Rosa counties pursuing a degree in Chemistry. Jennifer McPhee, a senior from Pace, FL, has been awarded the first Pall Corporation Scholarship for the 2008-2009 academic year.

For the 2009-2010 academic year, Sharon Blackwell received the Pall Scholarship. The scholarship she received is a new scholarship that is annually supported by Pall Corporation and is directed towards students from Escambia and Santa Rosa counties pursuing a degree in chemistry.

During the past few years, there has been tremendous growth and change in the Department of Chemistry, such as the addition of new faculty and new degrees, a significant increase in the number of students, broad improvement in the teaching prowess of new and established professors,

and a marked uptick in research activities. "The UWF Chemistry Department continues to meet the needs of local and national businesses and organizations for well-trained chemists through academic training and hands-on experience with cutting edge scientific equipment," said Michael Huggins, chair of the Chemistry department.

Pall Corporation has a longstanding record of financial support for the Chemistry program at UWF, such as providing student interns and co-op positions for Chemistry majors, and assisting Project SEED at UWF. Project SEED is a program sponsored by the American Chemical Society that is designed to encourage disadvantaged high school students to pursue career opportunities in the chemical sciences. Pall has been a wonderful supporter of the chemistry program at UWF via additional support for Project SEED and the hiring of chemistry undergraduate student interns. The Chemistry department gratefully acknowledges Pall Corporation's unflagging support of its program.

UWF STUDENT TO INTERN WITH THE DEPARTMENT OF ENERGY



Pensacola native and University of West Florida chemistry student Luther McDonald is getting the opportunity to explore the west coast, after receiving a prestigious internship with the Department of Energy (DOE) in Washington. McDonald is anxious for the adventure ahead and grateful for the thorough preparation he's received from the UWF Chemistry Department.

"I'm incredibly honored to get the chance to work for the DOE," said McDonald. "I feel like this opportunity will help me learn more aspects of chemistry that I haven't explored yet and become a more diverse person."

The DOE Office of Science funds the Science Undergraduate Laboratory Internship program at Pacific Northwest National Laboratory. The paid internship provides 10 to 16 weeks of summer or semester research to undergraduate students in the areas of science, math and engineering, technology, and science policy. McDonald will begin

his internship in January and will work for 16 weeks with DOE laboratory staff scientist, Steven Goheen, who received an Outstanding Mentor Award in 2008.

McDonald will work with Goheen on the project "Investigations into Mechanisms of Pest Infestations Using Analytical Chemistry." They will examine roots of plants for common chemical components to help solve significant agricultural pest problems.

"I don't know if I would have had this opportunity if it wasn't for UWF's Chemistry Department faculty," said McDonald. "I think that UWF has one of the best sets of chemistry faculty in the country and we can compete with any university program."

Through his various UWF research opportunities with Tim Royappa, associate professor of Chemistry, and Pam Vaughan, assistant professor of Chemistry, McDonald has been able to help develop and update lab protocols for "General Chemistry I" and "General Chemistry II" and participated in environmental research testing the toxicity of quinones, a group of lipid-soluble compounds. He currently is working with Royappa testing polyglycidol in different environments like heat, oxygen and Ultraviolet (UV) light to better understand its chemical and solubility properties.

"Initially I thought I wanted to go to medical school," said McDonald. "When I got involved in chemistry and started to do research with Dr. Royappa, I realized that I truly enjoyed it, and it was something that I wanted to do for the rest of my life."

HIGH SCHOOL STUDENTS FLOURISH FROM PROJECT SEED

By Josh Lyons, University Marketing Communications

Science is important, and so are students. That is why the University of West Florida provides Project SEED to help high school students gain extraordinary experience with science gurus. Three students are selected each summer to participate in the Project SEED program. Each person selected works one-on-one with veterans in the field of science.

"Many students with great potential are unable to go to college," said Pamela Vaughan, assistant professor of Chemistry. "While there may be many obstacles preventing them from going, quite often the most common reason is financial resources. The great thing about the Project SEED program is that students are paid to do research and then are eligible for college scholarships."

Each student who is accepted into the program is given a project to work on for the duration of the summer. Each project is pre-approved by American Chemical Society. At the conclusion of the summer, the student is required to write a two-page summary of their research. They also put together a table poster that will be displayed at a department-wide barbecue at the end of the summer.

"Although participants are limited to working on a project that is chemistry-related, there are many options available," said Vaughan. "We currently have two students working on campus and one student investigating corrosion chemistry with Gulf Power this summer."

Forty years ago ACS started the program called Project SEED. UWF is one of numerous universities around the nation currently participating in the program. UWF finds sponsors who provide some financial support for the high school students. ACS matches the donations of sponsors once all funding has been received. The money is then used to facilitate student learning and provide stipends.

"The Project SEED program has helped encourage me to continue looking into a variety of different sciences and has given me experience working in a laboratory setting," said Tamara Ebert after completing her first summer with Project SEED. "It has eased my mind about majoring in a science field that many people said was very difficult. It showed me that with some work and help from fellow lab workers such things may not be that hard, but rather fun."

Students can return for a second summer in the Project SEED program, and once they have completed their research, students are eligible to apply for college scholarships from ACS.

DEPARTMENT NEWS CONTINUED...

The entire university has experienced three consecutive years of budget cuts due to the economic circumstances in the state of Florida, though the impact of the cuts has been mitigated by the federal economic stimulus bill. Despite these unfortunate downturns, we are optimistic that we have finally “hit bottom”. There is still a long way to go, but we hope that the continued enrollment growth at the University will expedite the recovery. UWF has ~11,100 students enrolled in the Fall 2009 semester and the numbers are expected to increase in the near future.

This year, the Department was also very active in outreach into the local community. Over the course of the 2008-09 academic year, we coordinated the Fun with Science program for middle school students. The program brought 5th, 6th and 7th grade students to campus one Saturday a month for hands-on science activities conducted by UWF faculty members from Chemistry, Biology, Physics, Environmental Studies, and Clinical Laboratory Sciences. Over the course of the eight sessions, we had more than 450 students participate in activities related to polymer chemistry, the chemistry of fireworks, botany, the physics of lasers, and much more. In addition, the Department of Chemistry hosted a two day workshop for middle and high school science teachers. The teachers were presented lectures on light, energy, states of matter, density, and more as well as being balanced with presentations on classroom demonstrations and experiments. The workshop was attended by 30+ teachers from Escambia, Santa Rosa and Okaloosa counties, including some home school teachers.

WILLIAM D. SMART SEMINAR SERIES IN CHEMISTRY – DR. FRASER STODDART CONTINUED...

house of more than 200 Pensacola residents at the Institute of Human and Machine Cognition on Thursday, October 23, 2008 followed by a more scientific seminar on the UWF Main Campus on Friday, October 24, 2009 entitled “Chemistry and Molecular Nanotechnology in Tomorrow’s World”. Dr. Daniel Nocera, the Henry Dreyfus Professor of Energy and Professor of Chemistry at the Massachusetts Institute of Technology, will be the third speaker in the William D. Smart Seminar Series in Chemistry. He is scheduled to visit UWF February 18 & 19, 2010. We are looking forward to another great event. The success of the first two speakers has certainly set high standards for this wonderful program. Once again, we are indebted to Mary and the late William D. Smart for establishing this endowed seminar program.

UWF ALUMNI DEVELOPING NEW SCIENTIFIC METHODS



Helping to develop new treatments for wounded soldiers, two University of West Florida Chemistry alumni are working diligently to find ways to restore and rebuild damaged tissue. Ben Harrison, '98, admits that the research he and Sarah Genet, '08, are working on at the Wake Forest Institute for Regenerative Medicine stemmed from a UWF final exam question.

“When the director here asked if there were any ways to regenerate oxygen to somehow get it into tissue, I remembered sitting in Dr. Grace Chiu’s Analytical Chemistry class and the answer I had on the test about five ways to regenerate oxygen,” said Harrison. “One of the ways we thought could work and is the basis for the entire project.”

The institute was awarded a \$42.5 million grant over five years to co-lead with the McGowan Institute for Regenerative Medicine, one of two academic groups that will form the Armed Forces Institute of Regenerative Medicine (AFIRM). AFIRM will be dedicated to repairing battlefield injuries through the use of a science that takes advantage of the body’s natural healing powers to restore or replace damaged tissue and organs.

Looking for someone to be able to take his or her chemistry expertise and create something that’s never really been done before, Harrison knew exactly where to look to find an intern with multidisciplinary strengths – his alma mater.

“I was happy to get someone from UWF to work on this project because of the top-notch training they receive from the Chemistry Department,” said Harrison. “Sarah has an incredibly strong background and has been able to handle challenges far beyond her classical training. There are several milestones in this kind of research and I expect her to deliver.”

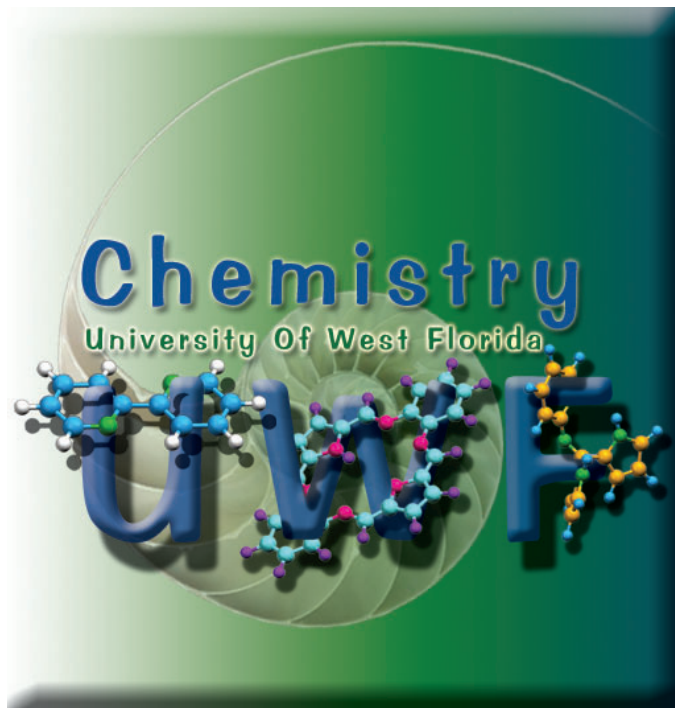
Taking advantage of the alumni connections she’s found at UWF, Genet is grateful for the opportunity to work side-by-side and learn from a fellow UWF alumnus, interning with Harrison and expanding her knowledge through the culmination of various sciences.

“Every so often when I’m doing an experiment, I take a step back and realize what I’m doing can be used to save limbs and to really change people’s lives,” said Genet. “The idea that this research can contribute to rebuilding new organs is truly profound and amazing.”

Joined by 20 additional universities, researchers are committed to developing clinical therapies in five areas including burn repair, wound healing without scarring, craniofacial reconstruction, limb reconstruction, regeneration or transplantation and compartment syndrome, a condition related to inflammation after surgery or injury that can lead to increased pressure, impaired blood flow, nerve damage and muscle death.

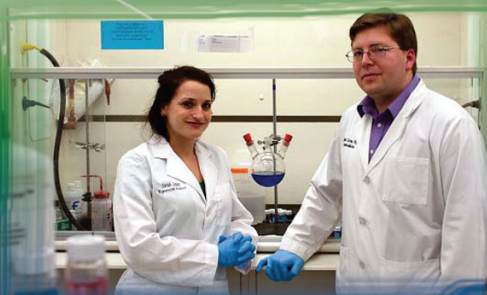
UWF Chemistry News

11000 University Parkway • Pensacola, FL 32514



Chemistry Department

University Of West Florida



News