GREETINGS FROM THE CHAIR

As I mentioned in the last newsletter, in the fall of 2009, we celebrated the 50th anniversary of the founding of the Department of Chemistry at Southern Miss. The highlight of this was a medical symposium eloquently delivered by six B.S. alumni of the department. Descriptions of this event are still posted on the alumni section of the department Web site. We were also pleased to exceed our target of $50,000 for our 50th anniversary endowed scholarship fund. As of July, the fund had $58,390. A significant fraction of this fund was provided by alumnus Thomas Campbell, whose generous contributions were matched 3:1 by his employer, ExxonMobil. We are also grateful to Drs. Mike Bonner and Leo Collins for additional major contributions. Please consider joining these friends of the department in supporting our scholarship fund, especially if your employer provides matching contributions. You can use the form on the back of this newsletter or call Sharon King at 601.266.4711 for assistance.

As we begin the next 50 years, the department will continue to change. Longtime biochemistry faculty member Jeffrey Evans retired this summer and is now teaching medical biochemistry at the William Carey University College of Osteopathic Medicine here in Hattiesburg. Our computational chemist, Yong Zhang, also left this summer for a position at the Stevens Institute of Technology. The department plans to search for two new faculty members this year. We have made some good hires in the past, best illustrated by the four current faculty who hold NSF CAREER Awards and by the fact that in the latest numbers (Chemical & Engineering News 87, 26-30, 2009) for most federal support for chemical R&D, Southern Miss has risen to number 30 in the United States! I have no doubt that the department will continue to attract outstanding new faculty in this search as well.

As you can see from the listing in the newsletter, we had 21 B.S., three M.S. and eight Ph.D. graduates this past year. I believe that is a record for B.S. graduates and should be at least close to one for doctoral graduates as well. Two of our B.S. graduates are now in doctoral programs in Texas, with Thomas “Grant” White at UT Austin and Maraou Davis at Texas Tech. Two others have gone on to engineering programs, with William “Brad” Nicholson going to obtain a second B.S. in engineering from MSU and Stuart Lovingood starting the master’s program in civil engineering at the University of Maryland. Sarah Ali is beginning the Master of Public Health program at Columbia. At least two others are entering medical school. This fall we had a record undergraduate enrollment of 162 majors so we look forward to further record graduations. My best wishes to all our alumni and friends!

Robert Bateman
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OUR 2009/2010 GRADUATES


Master’s Degrees: Bridget Confait, Michelle McCluskey, Lamaryet Moody

Doctoral Degrees: Fei Cai, Curtis Coumbe, Praveen Madasu, Dale Rosado, Gloria Viner, Veronika Viner, Scott Walper, Shijun Wang
Carletta Barnes-Ekunwe (B.S. ’98; M.P.H., D.M.D.) and her husband, Nosakhare Ekunwe, announce the arrival of son Aize, who was born on September 20, 2010. The couple also has a five-year-old daughter, Ameze.

Charles (“Chip”) Fillingane (B.S. ’06) received the Doctor of Osteopathic Medicine degree from Kansas City University of Medicine and Biosciences.

Lacey Harris (née Wahl) (B.S. ’09) completed her first year as a UMMC Dental School student with a bang; she is first in her class! This does not surprise us, since it just continues Lacey’s record of excellence as a triple major (chemistry/biochemistry, biological sciences, polymer science) at Southern Miss.

Jun (Jessie) He (M.S. ’08) is engaged in cancer research at the Massey Cancer Center of Virginia Commonwealth University and reports that she is learning biostatistics for her job.

Robert D. Johnson (B.S. ’08) is part of the chemical terrorism team in the MS Department of Health Public Health Lab. The lab tests for nerve agents and other hazardous chemicals using ICP-MS, LC-MS-MS and GC-MS.

Sara Johnson (B.S. ’07) obtained her M.S. degree from Southern Miss’ Center for Science and Math Education.

Praveen Madasu (Ph.D. ’09) is a postdoctoral researcher in the School of Polymers and High Performance Materials.

Lee Maggio (née Lewis) (Ph.D. ’03) and fiancé, Aaron Maggio, were married this summer. Lee’s husband works in the engineering field.

Michelle McCluskey (M.S. ’09) is employed by SciGenesis in Hattiesburg.

Akina Mizowaki (B.S. ’09) returned to Japan after graduating from our program and is working in the business planning department of an ophthalmic company in Tokyo.

Lamaryet Moody (M.S. ’09) is working as a technician in the School of Polymers and High Performance Materials.

Inseok Song (Ph.D. ’93) is a professor in the Department of Life Science at the University of Seoul, South Korea. He and his wife, Misung, have two high school-aged children, daughter Margo and son Ted.

Shijun Wang (Ph.D. ’10) is a postdoctoral fellow in Dr. Allen Bard’s group at the University of Texas at Austin.

Elizabeth (Rosie) Wasbrough (née Parker) (B.S. ’06) is a graduate student at the University of Bath, England. As is evident from her new last name, Rosie is now married to longtime boyfriend Matthew Wasbrough, whom she met during her study-abroad year (2004-05) at the University of Exeter. Matt spent the 2005-2006 academic year in our department as an exchange student. Rosie and Matt hope to graduate in December with their doctorate degrees.

Scott Thames (B.S. ’07) passed the medical board exams and started his first rotation (family medicine) at Larkin Hospital in South Miami. His remaining two rotations will be in OB-GYN at the Miami Haitian Clinic and in internal medicine at a branch of the Cleveland Clinic Hospital in Weston, Fla.

The world of science is, indeed, small! Venkataswarup (Swarup) Tiriveedhi (Ph.D. ’07), who has been a postdoctoral fellow at Washington University in St. Louis since July 2009, is collaborating with alumnus Chris Anderson (see also: Medical Alumni Symposium).

Katherine Windham (B.S. ’10) is pursuing her M.Ed. degree (biology emphasis) at William Carey University.
**STUDENT NEWS**

Hanaa Ahmed, doctoral student in the Phillips lab, received the Best Graduate Student Presentation Award of the Chemistry and Chemical Engineering Division at the 2010 annual meeting of the Mississippi Academy of Sciences.

Sarah Ali (B.S. ’10) was accepted to the Master’s in Public Health program at Columbia University in New York City, N.Y.

Bridget Confait (B.S. ’08, M.S. ’10) is working as a development chemist for Georgia Gulf Corporation in Jackson, Miss.

Crystal Cox-Serrano and Carrie Hofmann created a delicious edible periodic table, which everyone enjoyed tremendously.

Marauo Davis (B.S. ’09) is a graduate student in the Chemistry/Biochemistry Department at Texas Tech University in Lubbock, Texas. He passed his entrance exams and has decided to pursue research in inorganic/organometallic chemistry.

Miles Dunbar (B.S. ’10) was accepted to the UMMC medical school for the 2010-11 academic year and chosen to receive the Jim and Donna Barksdale Scholarship in recognition of his “superior academic achievement and outstanding experiences in health care, service and leadership that will potentially impact the medical school class and practice of medicine in Mississippi.” Way to go, Miles! Another milestone in Miles’ life—he and his fiancée, Meghan Lucus, were married this spring.

Robert Hunt, who is scheduled to graduate in May 2011, learned this fall that he has been accepted to UMMC for the coming academic year in an early admission decision.

Caitlyne Shirley spent the summer of 2010 in Dr. Maurice Brookhart’s lab at the University of North Carolina, Chapel Hill, working on alkane metathesis. Cait’s research was funded by a fellowship she received through the NSF Center for Enabling New Technologies through Catalysis (CENTC) program. This fall, she presented the results of her work at the annual CENTC conference. Cait also wrote and was awarded a NASA Space Grant last year.

**Veronika Viner** (M.S. ’06, Ph.D. ’10) is a postdoctoral researcher at the Naval Air Warfare Center, China Lake, Calif.

This past year was an eventful one for Scott Walper (B.S. ’04, Ph.D. ’10). He was hooded during the Centennial Commencement Ceremony and married Southern Miss alumna, Kristina Clarke, in May. Scott was awarded a postdoctoral grant from the Naval Research Labs in Washington, D.C., where he is continuing to pursue research in biosensor development.

Thomas (“Grant”) White (B.S. ’10) spent the summer following his graduation from our program as a summer undergraduate researcher at the National Institute of Standards and Technology and is now a first-year graduate student in the Chemistry/Biochemistry department at the University of Texas at Austin. He passed his entrance exams and will pursue research in organic chemistry.

**DEPARTMENTAL NEWS AND INITIATIVES**

**Project SEED:** A new group of high school students, Jalin Myrick, Taylor McAlister and Kevin Inmon from Petal High School, and Jonathan Rollins from Oak Grove High School, performed research in the labs of their respective mentors, Drs. Rangachari, Wallace, Miao and Masterson during the summer of 2010. Their work was supported by an ACS SEED program grant to Dr. Masterson.

**Another SURE Summer:** This year’s group of undergraduates who performed summer research in our department consisted of nine students from various universities around the country. During the 10-week program, the students had lots of fun in the lab and with various other activities such as bowling, playing beach volley ball and canoeing down the Okatoma River. This program continues to be a good graduate recruiting tool for us. Last year’s SURE student Emily Vogel from Hope College, Mich., joined our graduate program this fall.
Medical Alumni Symposium: To commemorate our department’s 50th anniversary, our chair, Dr. Robert Bateman, organized the 2009 Medical Alumni Symposium. Six of our graduates from the 1990s returned to their alma mater to speak about their careers in the medical sciences. For those of us who have been around for a while, it was a particular treat to chat with our accomplished former students, Drs. Chris and Jonathan Anderson, Kathleen Burns, Reade Quinton, Harn Cherng Shiue and Paul Sykes, some of whom we had not seen for many years. Please visit our Web site at http://www.usm.edu/chem/Alumni.html for more information. The symposium was a fitting tribute to our department’s first 50 years.

The Chemical Biology Super Group (CBSG) is the brainchild of Drs. Rangachari and Masterson, who hope that the CBSG will encourage and initiate strong interactions among interested research groups, promote interdisciplinary research activities and expose our students to multidisciplinary research approaches. The kickoff activity was a very interesting report by our colleague from Biological Sciences, Dr. Tim McLean, about cyanobacterial toxins that have been implicated in neurodegeneration in humans.

High School Outreach: Nickolas Whitehead, Distinguished Scholar student at Oak Grove High School, has been working for two consecutive summers in Dr. Sabine Heinhorst’s lab, where he is developing recombinant DNA constructs to produce recombinant fusion protein that consists of green fluorescent protein and a carboxysomal shell protein. Nick plans to incorporate the fusion protein into a solar cell he built earlier. He presented his preliminary results at the annual meeting of the MS Academy of Sciences and entered the Sanofi-Aventis BioGENEius competition. We are proud to report that Nick was chosen to be Mississippi’s sole representative at the regional competition in Atlanta.

K-12 Teacher Training: Dr. Angela O. Bedenbaugh is helping improve the teaching of middle school science in Mississippi. Funded by a $1.5 million grant from the U.S. Department of Education, Dr. Bedenbaugh and her staff show teachers how to incorporate hands-on science experiences in their classrooms using simple, inexpensive materials. This project, which has provided intensive instruction to about 150 teachers across our state, has already benefitted an estimated 15,000 students and will affect a large number of additional students as the teachers continue to apply what they learned in these workshops.

FACULTY AND STAFF NEWS

Another CAREER Grant: With the most recent awarding of an NSF CAREER grant to analytical chemist, Dr. Wujian Miao, our department now boasts four recipients of these prestigious grants (Miao, Masterson, Phillips, Stevenson)—clearly a record for a department of our size! Dr. Miao is exploring simultaneous multiplexing ECL detection and quantification of target biomolecules in a sample matrix with nanomaterials. Funds from his grant and from a scholarship for overseas studies from the Jiangsu government are supporting the visit of Dr. Cunwang Ge, professor of chemistry at Nantong University in China, in the Miao lab.

Another Ralph E. Powe Junior Faculty Enhancement Award: Our congratulations are extended to Dr. Anthony Bell, who is the latest recipient of this prestigious award, which is given annually to outstanding faculty members at Oak Ridge Associated Universities. More good news for Dr. Bell—he recently learned that he was awarded an NSF grant to develop enzymatic methods for the generation of peptidomimetics composed of L- and nonproteinogenic amino acids for in vivo applications.

Dr. Gordon Cannon was awarded a University of Southern Mississippi Lifetime Achievement Award.

Dr. Faqing Huang is this year’s recipient of the College of Science and Technology Outstanding Faculty Research Award. Dr. Huang also received a grant from the National Cancer Institute of NIH to develop therapeutic drug delivery systems based on nanotechnology. His laboratory will construct and study cancer cell–targeting nanoplexes made of gold nanoparticles and small interfering RNA (siRNA) with the goal of developing
efficient siRNA delivery agents to achieve anti-cancer therapeutic effects with no or minimal side toxicities.

**Dr. Vijay Rangachari** received a grant from the American Heart Association to investigate the effects of mutant forms of amyloid-beta peptide involved in Alzheimer’s disease (AD) and in cerebral amyloid angiopathy. Dr. Rangachari and Southern Miss computer scientist, Dr. Preetam Ghosh, were awarded a collaborative NSF grant to study the stochastic process of amyloid-beta aggregation with a combination of experimental and computational approaches.

**Dr. Karl Wallace** and Dr. Karen Orcutt from the Department of Marine Science received a collaborative NSF grant to develop analytical tools to measure biologically available iron in seawater.

**Ms. Sara Johnson** (B.S. ’07, M.S. ’10) is currently working in our department as project outreach coordinator and as teaching assistant supervisor. In the first role, she is working with regional community colleges and the Gulf Park campus to provide remote access to our new 400 MHz NMR. In the second role she is able to apply her knowledge of science education to help with the training of our graduate teaching assistants.

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**WORDS OF WISDOM**

**Dr. Jeffrey Evans, retired June 2010**

My 32 year career at The University of Southern Mississippi was a great experience because of all the students and faculty I taught or worked with during that time. Before I retired, I had taught approximately 25 different lecture and lab courses. I started with teaching undergraduate and graduate-level biochemistry and then expanded into general chemistry. Eventually I became director of general chemistry. It was good to see our students grow in knowledge and critical thinking in both the lecture room and the laboratory. I want to encourage students and alumni to continue to respond to the challenge of learning. It’s exciting to learn new things and put them to use. In addition to my teaching and research activities, I was called upon by other faculty to first serve as chair of Academic Council and later as president of Faculty Senate. On Academic Council, I learned how important it was to consider what we are expecting students to learn (learning outcomes) and how important it is to pay attention to details. On Faculty Senate, I learned that out of diversity of experiences and thought come wisdom. It does not come automatically, but instead you have to work at it.

My retirement was effective June 30. My wife retired too this year, and we enjoyed a couple of weeks of travel in July. I told people that I had to retire so I could drive my mother to work. She is still teaching at Southern Miss at age 93. I was retired for two weeks before beginning my new career as a full-time faculty member at the new William Carey University College of Osteopathic Medicine. I was hired to teach medical biochemistry. One hundred and ten first year medical students began their coursework August 15. Biochemistry begins in January so I have greatly enjoyed sitting in on lectures in the current courses. The faculty elected me president of their Faculty Congress so I have been busy with other faculty in developing or refining medical school policies and procedures. My experiences at Southern Miss have been of great help. I plan to continue to teach at the Osteopathic Medical School and be supportive of the Chemistry and Biochemistry department at Southern Miss as an emeritus faculty member.

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**2009/2010 PRESIDENTIAL SCHOLARS**

Erica Bloor
Suzanna Ellzey
John Forstall
Nathaniel Freeman
Elizabeth Fucich
Stuart Lovinggood
Clint Moore
W. Brad Nicholson
Kathryn Plunkett
Michael Samel
Caitlyne Shirley
Morgan Woodrow
2009/2010 SCHOLARSHIP RECIPIENTS

Sarah Ali .................. Robert D. Jordan Scholarship
Jessica Allcock ............ National Science Foundation S-STEM Scholarship
Kimberly Bladsacker ........ Noyce Scholarship
Amanda Blair ............... Stella D. Elakovich Scholarship
Jessica Coats ................ Noyce Scholarship
Chad Coles .................. National Science Foundation S-STEM Scholarship
Marauo Davis .............. Dr. Ronald E. McNair Scholarship
Miles Dunbar .............. Chemistry Alumni Scholarship
Kaylee Gentry ............. National Science Foundation S-STEM Scholarship
Kimberly Hoang ........... Beckman Foundation Scholarship
Robert Hunt ................ Robert D. Jordan Scholarship
Brandon Johnson ........... National Science Foundation S-STEM Scholarship
Stuart Lovinggood ........ Beckman Foundation Scholarship
Jane Pickens ............... Noyce Scholarship
Alyssa Robson ............. National Science Foundation S-STEM Scholarship
Jillian Smith .............. Chemistry Alumni Scholarship
Walker Wiggins ............ Charles and Carolyn Brent/Chemistry Alumni Scholarship
My Li Thompson .......... Beckman Foundation Scholarship
Steven Wand ............... National Science Foundation S-STEM Scholarship

SCHOLARSHIP CONTRIBUTION CARD

Enclosed is my check (in the amount of $_____________) payable to the USM Foundation.

☐ Please add to the Chemistry/Biochemistry 50th Anniversary Scholarship Fund (#1719).
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