— GREETINGS from the CHAIRS —

Dear Alumni and Friends of the Department:

There are two greetings this year as we have two chairs – an old one and a new one. (This does NOT refer to age!) Stella Elakovich stepped down as chair June 30, 2001, and Robert Bateman assumed the position on July 1. Bob’s greeting will follow Stella’s report of some of the many exciting events that have taken place since our last departmental newsletter in August 2000. Generous gifts to the department from alumni and friends continue to make our undergraduate scholarship program a success. These scholarships help us to both attract even more talented students and allow our current students to devote more time to their academic studies and less time to financial matters. Our fifth annual Scholarship Banquet, held to honor scholarship donors and recipients, is already scheduled for November 15, 2001. If you have not already done so, please consider donating to our scholarship fund and joining us in this annual celebration.

Dr. Debbie Booth joined the department this past year as a replacement for Mr. William Crum, who was on a ten-month leave of absence. Bill has recently returned and is eager to resume working with our teacher education program. Mr. Wally Bugg, B.S., 2000, served as Laboratory Instructor for the academic year and this summer.

We have some changes among the faculty. Dr. Douglas McCain and Dr. Stella Elakovich retired as of June 30. Our long-term College Dean, Dr. Steve Doblin, has recently left to join the faculty at Lamar University in Beaumont, Texas, as Provost. Dr. Robert Lochhead, former chair of Polymer Science, has assumed the position of Dean. Dr. Andy Griffin was appointed Provost, during midyear administrative reorganization.

We are always eager to hear from our friends and former students. Please let us know what you are doing, and we will share your news in our next newsletter. We look forward to hearing from each of you. Please come by for a visit when you are in the Hattiesburg area. We are eager to show you the many changes that have taken place since you were a student here.

It has been a pleasure to serve as Chair of this department for the past four years. I am pleased to turn it over to Bob Bateman’s capable hands. I am sure that all of you will work with him to make the Department of Chemistry and Biochemistry even stronger than it now is. Bob’s message to you follows.

Sincerely,
Stella D. Elakovich
Professor and Chair (until July 1, 2001!)

Greetings from the new chair:

It is with much excitement that I enter into my first year as chair of the Department of Chemistry and Biochemistry. Although budget cuts across the University have affected us, the many positive indicators of our department’s strength can be seen throughout this newsletter. Several faculty awards and upgraded NMR facilities, including a new 500 MHz instrument,
are among highlights of the good things that are happening.

Looking ahead, it will be a major goal during my time as chair to build up the number of students in the graduate program. We are off to a good start with at least seven new students entering next fall. This summer marked the beginning of our first NSF-funded summer undergraduate research program, headed by Jeffrey Evans, with twelve undergraduate research students from other universities flooding into our department. We hope that some of these will enter our graduate program as well. If you are a faculty member or otherwise know of good undergraduate students considering graduate school, please direct them to us.

Finally, we will have a new web site at www.chem.usm.edu this fall, which will have a special section for alumni and friends. If you can't visit us in real space, make a virtual visit to the department! To update your address and send us news items, either fill out the back of this form and mail it to us or, better yet, simply e-mail us at chemistry@usm.edu. There will also be a section in the new web site on the history of the department. Many of you are a part of that history and may have photos or recollections that you would like to contribute. Let me know if you are able to help.

Sincerely,

Robert Bateman
Professor and Chair

— ALUMNI NEWS —

Dr. Dionne Fortenberry, Ph.D., ’98, is an assistant professor at Mississippi University for Women. We were pleased to have Dionne bring several of her students to our Graduate Student Recruiting Day this past spring.

David Arrington, B.S., ’97, is pursuing his doctorate at the University of Alabama at Tuscaloosa. His e-mail address is David.Arrington@mail.ua.edu.

Archie Nichols, B.S., ’98, and his wife LaDonna are living in Jackson, Miss., where Archie is working at the State Crime Lab. Archie recently completed his Master’s degree at the University of Alabama at Tuscaloosa.

Herb Dedeaux, B.S., ’92, lives with his wife Teresita, daughter Brianna (7), and son Bryton (5) in Miami. Herb is Senior Forensic Chemist with DEA. He has just begun work on a Master’s in Public Administration.

Gina Ray Bowden Eagen, B.S., ’95, will be working for Mallinckrodt Baker in Phillipsburg, N.J., as an Applications Chemist after defending her dissertation at Penn State on August 3, 2001.

Dr. Ricky Cummings, Ph.D., ’98, is an Assistant Professor at William Carey College in Hattiesburg.

Scott Stevenson, B.S., ’98, is a Quality Control Chemist at Gaylord Chemical Corporation in Bogalusa, La.

Felicia Stewart-McCarty, B.S., ’99, is pursuing her Ph.D. in chemistry at the University of Alabama at Huntsville. She performs her research at NASA, studying the effects of gravity on the photopolymerization of poly(diacetylene).

Megan Johnson, B.S., ’01, married Christopher Michael Fortenberry in December. Megan is currently working for the department on a grant project led by Drs. John and Angela Bedenbaugh, Emory Howell, and Iva Brown.

Dr. Yuri Chekanov, postdoc in John Pojman’s lab, has recently joined Michelin in South Carolina.

Dr. Victor Ilyashenko, postdoc in Pojman’s lab, is now employed at IPG Photonics Corporation.

Dr. Jonathan Masere, postdoc in Pojman’s lab, is employed by Lithium Power Technologies, Incorporated, Houston, Texas.

-OUR NEWEST ALUMNI –

Congratulations to our newest alumni, our 2000-2001 academic year graduates of the Department of Chemistry and Biochemistry:

Charles Walter Bugg, B.S., ’00; Tara Lynn Dawkins Hurt, M.S., ’00; Chad Jeffrey Booth, Ph.D., ’00; Puwei Liu, Ph.D., ’00; Angela Hope Adams, B.S., ’00; Elissa Marie Hudspeth, B.S., ’00; Alecia Lynn Nix, B.S., ’00; Jamie Elizabeth Speed, B.S., ’00; Tiffany Michele Folse, B.S., ’01; Megan Leigh Fortenberry, B.S., ’01; Mignon Antionette Keaton, B.S., ’01;
Andrea Alyse Krell, B.S., '01; Teresa Annette McDonald, B.S., '01; Claretha R. Nichols, B.S., '01; Brian Steven Rodgers, B.S., '01; Joyce Evans Sullivan, B.S., '01; Ashley D. Trahan, B.S., '01; Eric Brian Williams, B.S., '01; Shannon Denise Williams, B.S., '01; Brandi Autoria Wise, B.S., '01.

— UNDERGRADUATE SCHOLARSHIP AWARDS —

We are grateful for the generous support of our alumni and friends who make possible the awarding of scholarships to our students. During this past year Mr. Fred Drews, Jr. added an endowed scholarship in the Chemistry and Biochemistry Department in honor of his late wife, Nadyne. The Fred and Nadyne Drews Scholarship supports four students within the College of Science and Technology.

Daniel Antrim, Bobby R. Thornton Memorial Scholarship
Michelle Freeman Bobby R. Thornton Memorial Scholarship
John Dudley, Chemistry and Biochemistry Alumni Scholarship
Mignon Keaton, Cecil G. Sharp Scholarship
Kayce Leard, Chemistry and Biochemistry Alumni Scholarship
Jay Hunter Russell, John and Sandra McGowan Biochemistry Scholarship
Eric Ryan Smith, Robert Jordan Endowed Scholarship
Jamie Speed, Bobby R. Thornton Memorial Scholarship
Eric Williams, Fred H. and Nadyne M. Drews Endowed Scholarship
Shannon Williams, Charles and Carolyn Brent Scholarship and Robert Jordan Endowed Scholarship
Brian Zoltowski, John and Janice Wells-Addison Scholarship

— UNDERGRADUATE HONORS —

The department recognizes outstanding students in the several areas of chemistry at the annual University Awards Day. This year's recipients were

E. Ryan Smith, Analytical Chemistry
Callie E. Bounds, Biochemistry
Andrea A. Hall-Krell, Chemical Education
Kristi L. Budzinski, General Chemistry
Megan Johnson-Fortenberry, Inorganic
Valerie S. Griffin, Organic Chemistry
Brian D. Zoltowski, Organic Chemistry
Brian D. Zoltowski, Physical Chemistry
Eric B. Williams, Shelby Townsend Citizenship

— HONORS THESES —

Six of our students presented the results of their honors thesis research at the spring 2001 Honors Symposium. Andrea Hall-Krell (Dr. Butko, advisor) presented “Identification of the Molecular Target for Natural Antibodies Against Group B Streptococcus bacteria”. Mignon Keaton (Dr. Heinhorst, advisor) presented “Cloning of the cDNA for the 68 kDa DNA-Binding Protein of Glycine max Chloroplast Nucleoids”. Claretha Nichols (Dr. Heinhorst, advisor) presented “Identification of Peptide Sequences Contained Within Caenorhabditis elegans Ivermectin Receptors”. Ashley Trahan (Dr. Wertz, advisor) presented “Correlating Wavelength-Dispersive X-ray Fluorescence Spectra from Various Model Compounds with WDXRF Spectra of Various Experiments Related to the WOMBAT Process”. Eric Williams (Dr. Cannon, advisor) presented “The Effect of Carbonic Anhydrase on the CO2 Fixation Capabilities of Intact Carboxysomes and Rubisco Extracted from Carboxysomes”. Shannon Williams (Dr. Huang, advisor) presented “Kinetics and Implications of RNA Capable of Catalyzing Coenzymes and Cofactors”.

— USM STUDENTS TO FLY AGAIN —

A team of undergraduates in the Department of Chemistry and Biochemistry has been selected to fly with their experiment on NASA’s KC-135 microgravity research aircraft. The student team led by Kayce Leard and Brian Zoltowski competed with schools from around the nation. The students’ project, “Investigation of the Effects of G-Level on the Intensity and Pattern of Gas Discharge Tubes,” will involve measuring the patterns of electrical discharge as a function of the
“g-level” in a “plasma ball.” The plane will fly 40 parabolas on each of two days in which the experiment (and flyers!) will experience weightlessness for 20 seconds followed by a minute of up to 1.8 g, where 1 g is the normal force experienced on the ground.

NASA officials complimented the team on their experimental design that should yield a better understanding of the effects of gravity on plasma interaction.

The students will spend August 9 to 18 training and flying. They are currently undergoing their health exams, preparing documentation for NASA, and constructing their flight hardware. This is the second team to have this opportunity. William Ainsworth, now a graduate student in the Department of Chemistry and Biochemistry, led Mississippi’s first team. He is advising the current team, which consists of Brian Zoltowski, Nicholas Carter, Kristi Budzinski, Kayce Leard, and Christina Watters.

These students must raise the funds required for the flight—some $7000, and they still need $4000. If you would like to help them with this project, please send donations to the department designated “Student Flight 2001.” Many thanks for your support!

— GRADUATE STUDENT HONORS —

Each year the faculty select an outstanding graduate student of the year. The 2000-2001 academic year recipient of this award is Rachell Booth. Rachell has received three grant awards: a Sea Grant Fellowship for the spring of 1998, a travel award to attend a Gordon Research Conference during summer 2000, and a Sigma Xi Research Award to fund her protein crystallization studies. She works with Dr. Robert Bateman and plans to graduate December 2001. She will join her husband Chad Booth, Ph.D., 2000, in Texas. Chad was last year’s recipient of this award.

— FACULTY TRANSITIONS —

Dr. Douglas McCain is retiring after 30 productive years at USM. Doug says it is a good time to retire as he has published his 62nd paper. That’s one paper for each year of his life! Doug and his wife Mary Lou plan to hop into their new RV and head toward Alaska as soon as his retirement is official. They have had numerous offers from others willing to go along, but Doug claims the RV will hold only two people and a small dog.

Dr. Stella Elakovich is retiring after 27 years at USM, the last four as department chair. She plans to launch a second career as a stained glass craftsman. You may look for her selling her wares at craft fairs in the area.

— FACULTY HONORS —

Faculty continue to receive University-wide honors. Biochemist Dr. Gordon Cannon is serving his second year as Southern Miss’ fourth T.W. Bennett, Jr., Distinguished Professor in the Sciences. Dr. Robert Bateman was promoted from Associate Professor to Professor. Bateman also received the 2001 Mississippi Academy of Sciences Outstanding Contributions to Science Award, an annual award presented to one scientist within the state of Mississippi. Dr. Stella Elakovich received the 2000 HEADWAE Award for Faculty. One faculty member from each college and university within Mississippi is selected for this award each year. Dr. David Wertz received an Aubrey Keith and Ella Lucas Endowment award for funds for his current research on useful products from scrap tires. Dr. Jeff Evans received a USM Summer Grant for Improvement of Teaching to allow him to develop and implement an on-line learning system for freshman chemistry students.

The year 2000 was an excellent year for external funding for the department. Grant funds exceeded $3.6 million! Of special note is a two-year $1.9 million grant from the National Science Foundation that will enable Dr. Angela Bedenbaugh, Dr. John Bedenbaugh, Dr. Emory Howell, and Dr. Iva Brown to lead a statewide effort to improve the teaching of physical science in grades 7-12. Mr. Bill Crum is also helping with this project.

Dr. John Pojman passed the Science Concept Review in December 2000 for NASA to have two experiments approved for the International Space Station (ISS). One experiment is the only experiment on polymers scheduled for the ISS. Dr. Pojman also received

— SCHOLARSHIP FUND DONORS —

2000-2001

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Joan McCoy Messer
Danna Leard Rehme

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We thank all who have contributed!

*USM Department of Chemistry and Biochemistry faculty.

UNDERGRADUATE SCHOLARSHIP DONOR HIGHLIGHT

Dr. Charles Ronald Brent, B.S., 1976, recently contributed a substantial gift to the Charles R. and Carolyn Brent Scholarship Endowment. His gift will enable the department to annually award a second scholarship from the endowment to a student majoring in chemistry and biochemistry. Dr. Brent is a neurosurgeon in Hattiesburg and he is the son of Dr. Charles R. and Carolyn Brent. The faculty of the Department of Chemistry and Biochemistry expresses their sincerest thanks to Dr. Brent for his interest in our students and commitment to our department as manifested in his generosity. Over the years ahead many worthy students will benefit from this scholarship, and go on to join the of ranks physicians, scientists, teachers and other professionals who are USM Chemistry and Biochemistry graduates.

— NEW LABORATORIES —

As of this date, renovations of Walker Science Building are almost complete. We are having a hard time recognizing the (almost) elegant look of this most renovated of all buildings! It now contains the new Reuben Lecture Hall that will be equipped with state-of-the-art technology. An endowment provided by Mrs. Reuben provides annual funds for technology. Funds allocated for the building renovation were insufficient for the completion of a second planned lecture hall, so it will be an empty shell. We’re hoping for a generous benefactor to complete this greatly needed lecture hall!

We would like to show off our newly renovated facilities. Please stop by for a visit.
Editor’s Note
We have not heard from many of you in a while. Please keep us up-to-date on your location, jobs, honors, and any personal communications you would like to share with faculty and other alumni, and we will keep you up-to-date on news from the department. We welcome any suggestions from you on what you would like to see in our newsletter. An information form is included for your convenience, or you may e-mail us at jean.puckett@usm.edu.

CONTRIBUTIONS FOR THE NEXT EDITION OF CHEM/BIOCHEM NEWS

Name _____________________________________________   Degree _____________________  Year ______
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Professional changes or news, current projects, interests, etc. __________________________________________
                                                                                                    
                                                                                                    
                                                                                                    
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