



# Solutions



5/29/2012

## **Message from the Editor:**

The Chemistry Department alumni have scattered across Texas, the United States, and beyond. The Chemistry Department is fortunate to have maintained a fairly good database of mailing addresses so that we can keep in touch with you and send you this newsletter. However as we move into the future we would like to add email addresses to our database of alumni contact information. We do not want this information to fill up your inbox with spam, but sometimes an email address is more permanent than a mailing address. Just send me an email with “alumni” in the subject line and I will add that email information to our database. Of course feel free to share any information you wish to be included in the “Alumni News” section of the next newsletter as well. I would also like to invite you to connect with my professional network on LinkedIn if you have an account at the site.

Sincerely,

Dr. Edward Donnay

[donnay.edward@mcm.edu](mailto:donnay.edward@mcm.edu)

## **Alumni News:**

Mr. Kevin Flusche ('95) was chosen to serve on the McMurry Science/Math Advisory Board (SMAB). He will join fellow chemistry alumni on the board Dr. Max Wynn ('80), Mr. John Pemberton ('94), and the current chair Dr. John Manning ('79). SMAB is still looking for new board members who wish to be involved with the science departments at McMurry. If you would like to know more about SMAB, you can visit their website at [www.mcmurrysmab.org](http://www.mcmurrysmab.org) or contact John at [mail@johnmanning.net](mailto:mail@johnmanning.net).

Dr. Richard Nason ('83) returned to McMurry for homecoming and gave a talk to science and math faculty, students, and alumni. The talk was titled “Science Education as Competitive Advantage”. Girvin Harkins ('60), Ralph Turner ('74), and Eddie Massey ('61) were also here at homecoming. Eddie came to celebrate his 50<sup>th</sup> class reunion.

We have heard from the following alumni in the past year: Dr. Carolyn (McCoy) Cutaia ('69), Bob Collins ('70), and Brandon Randell ('10).

## **Departmental News:**

The department is happy to introduce two new graduates, both of them Honors students! They are Danni McMahan (B.S. in Biochemistry) and Nathan Worley (B.S. in Biochemistry). Danni completed her honors thesis on spinal cord injury treatments and therapies under the direction of Dr. Paul Pyenta. She won the W. Norton Jones Scholarship as a junior and the Outstanding Senior Award from the department this year. She has been accepted into the Texas Tech University Health Sciences Center School of Pharmacy. Danni won the Ginny Carlson Award for the Outstanding Senior Woman and spoke at baccalaureate. Nathan completed an honors thesis under the direction of Dr. Edward Donnay concerning a possible photodynamic therapy agent he synthesized during his summer research. Nathan gave a talk about his work at the 4<sup>th</sup> Annual Undergraduate Research Festival at ACU on April 2<sup>nd</sup>. He interviewed for a spot at the School of Medicine at the University of New Mexico but was unsuccessful. He is waiting to hear back from MBA programs at Baylor and Trinity Universities where he also had interviews.

At the McMurry Awards luncheon our laboratory manager, Steve Davis ('98) received the Exemplary Service Award from President Russell. It recognizes the excellent work that Steve has done for the biology and chemistry departments. The award includes a grant to support development activities so that Steve can continue to be the outstanding staff member he has shown himself to be.

At the March Board of Trustees meeting Drs. Donnay and Shin were awarded promotion to the position of associate professor with tenure. Dr. Donnay has been at McMurry since the fall of 2006 after postdoctoral stints at Furman University and Kent State University. Dr. Shin began at McMurry in the fall of 2008 after previously teaching at the University of San Francisco.

The department was successful in obtaining a one year renewal of our Welch Departmental Grant for \$25,000 that supports students and faculty doing research. The Welch Foundation has changed from three-year renewal periods to one-year renewals. This grant is essential for maintaining research activity in the department. Work being done under the Welch grant is described below. Dr. Hyunshun Shin received a Sam Taylor Award of \$2000 to fund her research.

The department curriculum underwent some minor changes. An internship in chemistry can now earn a student college credit if it is arranged beforehand. The current one-semester inorganic course will be replaced with a midlevel offering that fits better with the preparation and goals of students taking that course. An advanced course in inorganic chemistry may also be offered according to student demand. The chemistry minor has been changed to be more flexible. A student can take any three chemistry courses after general chemistry I and II to receive a minor.

The largest change this past year was the offering of general chemistry I and II over the summer term by Dr. Pyenta. The enrollment was much higher than expected. The course offerings appeal to those students who cannot begin general chemistry immediately due to a poor high school math background and to those needing to retake one of the courses, since the students can still sign up for organic chemistry in the fall of the next year and remain on track in their degree plans. Dr. Pyenta is teaching the courses again this summer and the classes are already close to full. This translates to a high enrollment in organic chemistry next fall.

### **Departmental Research:**

Drs. Donnay and Veltkamp were accompanied by students Nathan Worley and Amanda Genzling to the 67<sup>th</sup> Southwest Regional Meeting of the ACS in Austin in November. Nathan presented a poster titled "Chromium polypyridyl complexes containing acidic groups" in the undergraduate session. The same two students attended the Baylor instrumentation workshop with Dr. Veltkamp in October.

Dr. Shin went to a POGIL workshop last summer in St. Paul, Minnesota. She also attended the 242<sup>nd</sup> National ACS meeting in Denver where her student Jonathan Urbanczyk (a Dec. 2011 Biomedical Science major, Biochemistry minor) presented a poster titled "Synthesis of analogs with phenanthroline functionality targeting biosynthesis of lipid A in various gram-negative bacteria". Dr. Shin also directed Jonathan's honors thesis.

This summer the department has six undergraduate students conducting research on the Welch Foundation Departmental Grant, including two from last summer continuing their work. Dr. Hyunshun Shin has three students working on her projects targeting the biosynthetic pathway for polyamines: Amanda Genzling, Staci Palacios, and Sara Ploetz. Dr. Edward Donnay will be supervising three students as well: Oluwatoyosi Adewunmi, Joshua Brooks, and Christi Barr. They will be trying to synthesize and characterize new chromium containing metal complexes. These complexes are possible photodynamic therapy agents and the students will also try to test the ability of the compounds to bind to DNA.

### **School and Miscellaneous News:**

Dr. Dick Schofield retired this spring after 30 years spent at McMurry teaching geology courses, first in support of the geology major, and then, after the major was discontinued, in support of the (now terminated) Environmental Science major and concentrations in science teaching fields and the biology department. A search to hire a tenure-track geoscientist this year was unsuccessful so the courses will be taught by a visiting faculty member. A new search to fill the tenure-track position will begin shortly.

Renovation of Old Main began last May but hit a snag when there was a groundwater problem discovered. The anticipated two-year project has been on hold for six months as the issue has been studied. Hopefully the problem will be resolved soon and the renovation can move forward so that the project can be completed on time. Although the renovation does not affect the faculty in the science building directly, it does have a direct impact on our colleagues in math, as that entire department has moved to cubicles in the Campus Center. An indirect effect has been that more classes are held in the science building, due to the loss of classroom space in Old Main.

### **40 Years Ago in the Department**

*(Below are news items and excerpts from the department newsletter from May 1972. The entire newsletter can be seen on our website, [www.mcm.edu/newsite/web/academics/ncs/chemistry/news](http://www.mcm.edu/newsite/web/academics/ncs/chemistry/news))*

“The staff of the department continues to consist of Drs. Harris, Jones, Klassen, and Sonntag.”  
Student award winners were: freshman-Randal White, sophomore-Larry Sears, senior-Paul Suddarth. “Carl Hudson was a recipient of one of the medals awarded by the Texas Chapter of the American Institute of Chemists, thus giving McMurry a winner for the third consecutive year.”

“In addition to its ACS approved major the department will offer in the future a B.S. program that requires only 30 sem. hrs. of chemistry and less math and language than for the B.A.” The program was designed to serve pre-health professionals and in a joint program with the department of business to serve those interested in the business side of the chemical industry. *(After removing this degree several years ago, the department reintroduced a similar degree plan, now a B.A., a few years ago to support the chemistry teaching field.)*

“With the last half of the NSF matching grant reported to you last spring we have added to our stable of instruments a Perkin-Elmer 700 I.R. spectrometer...and a very good Nester-Faust spinning-band vacuum distilling unit. Also we have added a variable temperature probe to the fundamental NMR spectrometer.”

### **Alumni Search:**

The following list contains the names of alumni for whom we have incomplete, incorrect, or no address. If you know the contact information for any of these alums, we welcome your sharing that information with us, or you might contact that person and ask him/her to contact us.

Gregg Mamikunian '56  
James Tingle '59  
Jack Shultze '62  
Mohamad Dareshori '63  
Gail Hart Long '64

George E. Bernard '73  
C. Randall Cotney '74  
Susan Arth '75  
Tommy C. Taylor '75  
Conley Goines '76

Gregory Guy Alexander '79  
Laurel Van Winkel '81  
Sarah Lou Hearrell '90  
Mirela Zimic '97