

AUGUSTANA

DEPARTMENT OF CHEMISTRY

NEWSLETTER



AUGUSTANA
COLLEGE
SIOUX FALLS, SD
57197
www.augie.edu

THE DEPARTMENT CHAIR

The Department and the Natural Science Division continue a slow but steady growth. The number of new Chemistry majors was down a little, but the new



Duane Weisshaar

Biochemistry majors more than made up for that. I'm serving as Department Chair since Jetty Duffy-Matzner is on leave and a significant chunk of my efforts this fall has been spent compiling the info to requisition the

necessary resources and staff to take care of these students.

After 26 years, teaching classes has settled into a routine, but not one that is cast in stone. Last Spring I instituted a research component to the lab in Analysis focusing on method validation. The first time went well, but I will be tweaking several things this spring.

During the 2009 summer, Gary Earl and I worked with six students: Bethany Zogg, Katie Behrens, Kenan Tokmic, Elliot Bloom, David Swanson, and Jordan Clark. Bethany and Katie used the new 400 MHz Jeol NMR, purchased with the first year funding of the 5-year South Dakota EPSCoR grant, to tie up the loose ends on the methyl carbonate stability study. We hope to submit a paper describing those results sometime this academic year. (The Chair duties eat up way too much time). After several fits and starts from previous summers, Elliot and Kenan made some good progress on the development of an anion chromatography

method to follow the anion exchange reaction of our methyl carbonate quats. Jordan and David were successful in synthesizing methylbutylimidazolium dipicolinate via a dimethyl carbonate quaternization. The chemistry was not as straightforward as expected, but it was successful. There is much more to understand about this reaction. The dipicolinate synthesis was for a collaboration with Dr. Mary Berry at USD which we hope will continue under the EPSCoR grant.

Although Gary plans to remain active in our research collaboration, he decided to take the 2010 summer off. To provide time to work on an NSF proposal and on the stability paper, I only took on two students for the summer. Kevin Zogg and Ben Parsley worked to finalize data collection for a paper on analytical methods for following the quaternization reaction. I was able to get the NSF proposal submitted (should hear in February) and make some progress on the stability paper. Kevin and Ben nailed down details for following the DMC/tributylamine



Chemistry Department Faculty and Staff (front row L-R): Bijoy Dey, Brandon Gustafson, Diane Pullman and Marlys Vant Hul, (back row L-R): Barry Eichler, Duane Weisshaar, Erin Mercer and Jared Mays

reaction with NMR and cation chromatography details, but we still need to finalize the details for other amine systems.

In the summers I still bike to work and play softball, or at least attempt to.

JOHN A. FROEMKE CHEMISTRY LECTURE SERIES

The John A. Froemke Chemistry Lecture Series was funded several years ago by chemistry alumni. John August Froemke (1893-1988) was Professor of Natural Sciences and Chemistry for a long and important time during Augustana College's growth and development as a major educational institution in South Dakota. Dr. Froemke was at Augustana College from 1930 to 1964 and he made many important contributions to the chemistry department and to the college. This series brings back to campus chemistry students for the day to present a seminar and to reconnect with Augustana faculty and students.

On May 10, 2001, Daniel Chan '07, presented "Twenty years of school and counting: the path towards becoming a cancer investigator."

Dan graduated from Roosevelt High School in Sioux Falls, SD in 2003; is an 2007 alum from Augustana College majoring in Biology, Chemistry (ACS), & Philosophy; and is now a M.D./Ph.D. student at Sanford USDSOM and will graduate in 2011. Dan's field of study at USDSOM is Cellular and Molecular Biology. He has conducted research at USD, Mayo Clinic, and Sanford Research/USD.

That evening the department combined the Froemke Seminar Dinner with the Banquet for the graduating seniors at the Westward Ho Country Club. In the spring we will be hosting another Froemke Chemistry Lecture Series and the speaker will be Dr. Matthew L. Leininger, Augustana class of '95.



2010 CHEMISTRY MAJOR GRADUATES

The Chemistry Department celebrated with ten seniors at a banquet at the Westward Ho Country Club in May 2010. The department will miss these wonderful students and we celebrate their future.

Name	Hometown	Future
Nicholas Bleeker	Redwood Falls, MN	Ph.D. in Medicinal Chemistry at University of Minnesota
Shannon Cumiskey	Worthington, MN	Ph.D. in Chemistry at North Dakota State University
Adam Dittmer	Coon Rapids, MN	Ph.D. in Chemistry at the University of Minnesota
Katie Hassebroek	Little Rock, IA	Pharmacy at University of Iowa
Jamie Horter	Bristol, SD	Employed at an Environmental Firm
Neil Patel	Worthington, MN	M.D./Ph.D. University of Vermont
Susan Rust	Sioux Falls, SD	Applying to Pharmacy Schools
Michael Stutelberg	Woodbury, MN	Ph.D. in Chemistry at South Dakota State University
Michael Todt	Moorhead, MN	Ph.D. in Physical Chemistry at Cornell University
Bethany Zogg	Albert Lea, MN	Graduate School at University of North Dakota and applying for admission into UND M.D. program

ACS NATIONAL HONOR

The American Chemical Society (ACS) has announced that Augustana's ACS Student Chapter has received the Outstanding Award for its activities conducted during the 2009-2010 academic year.

Across the nation, more than 360 activity reports were submitted for the 2009-2010 academic years. Among those, the ACS' Society committee on Education

presented only 35 Outstanding Awards. Professor Jetty Duffy-Matzner and Professor Jared Mays are the faculty advisors of the Chapter.

In March 2011, we have 12 chemistry students attending the National ACS meeting in Anaheim, CA, 11 of these students will be presenting their research from last summer. Dr. Barrett Eichler will also be attending to present his research.

FROM THE FACULTY

Bijoy Dey
Hi everyone! This is my second year as an Assistant Professor of Chemistry at Augustana College. Let me tell you how I found myself here at Augustana.

I grew up in India and my high-school teachers would like me to be a Mathematician for I was repeatedly ranking 1st in mathematics. As I was pursuing undergraduation at a College, I began interested in chemistry and obtained B.Sc.(honors) with physics, chemistry and math majors. End of college days, and I knew I will be a physical chemist. So I finished my Master in chemistry with specialization in physical chemistry. I chose to attend Panjab University's Center of Advanced study in Chemistry for doing research in theoretical chemistry and obtained my Ph.D. This was possible because of the fellowship I had received from the Council of Scientific and Industrial Research, Government of India. My doctoral thesis dissertation was titled "Density functional and quantum fluid dynamical studies on many-electron systems," which was derived from five of my publications during that period. My next stop was half-world away! I moved to Princeton University where I spend a few good years doing postdoctoral research. There, I worked on "quantum dynamics and control". Next few years saw me doing research at various research Institutes, namely, University of Toronto, McMaster University, Institut fuer Theoretische Physik (Freie Universitat Berlin), and University of Waterloo. It was at the University of Waterloo that I, first, started teaching graduate level courses.

From Waterloo to Augustana, transition was not easy in the beginning. Like most faculties in their first couple of years, I focused on preparing courses, setting up teaching and research labs, and becoming acclimated to the department and the college. At Augustana, I have taught courses in general chemistry, physical chemistry I,

physical chemistry II, general sciences and general chemistry II. Using the College's start-up funding I have managed to set up my research lab which comprises a few high-end workstations and several computational chemistry softwares.

My backgrounds, as well as my past and current research interests are multidisciplinary, which includes chemistry, physics, mathematics and computer programming. My current research focus includes, but not limited to, determining reaction pathways of complex reactions, developing new approaches for studying molecular dynamics and quantum dynamics, photochemical processes, controlling quantum systems, atom/molecule



Bijoy Dey

under laser electric field, and Bohmian mechanics for quantum evolution. Summer 2010, I have obtained NSF-NPURC research grant which has enabled me to do research with one rising senior, Robert Fick, and one junior Taylor Kapsch. One senior, Nathan Truex, also received research support during the summer 2010 under the Viste scholarship. I have also maintained research collaboration with people from Waterloo and McMaster, and often travel to Canada when time permits.

Recent presentations from my research lab include:

ORAL: (1) "Computing reaction path: a new perspective of old problem" B. Dey, 2009 ACS_MWRM

POSTER: (1) Robert Fick, "Exploring group marching algorithm for solving generalized Hamilton-Jacobi equation: A new approach for computing reaction path" Sioux valley ACS poster competition, 2010 and ACS_MWRM, 2010; (2) Taylor Kapsch, "Classical wave-front based simulation of reactions with bifurcating paths: Walking on the potential energy surface having valley ridge inflexion points" Sioux valley ACS poster competition, 2010 and ACS-MWRM, 2010;

REGIONAL AMERICAN CHEMICAL SOCIETY AND SUMMER RESEARCH PROJECTS

The Sioux Valley Section of the American Chemical Society (ACS) held its annual Undergraduate Poster Competition on Saturday October 16 at the University of South Dakota. There were 14 entrants from USD, SDSU, and Augustana (9 from Augustana). Augustana walked away with the three top prizes! The winner was Rob Fick who worked with Dr. Bijoy Dey. He receives up to \$600 to present his poster at the National ACS meeting in San Francisco in March. Second place went to Jeremy Erickson who worked with Dr. Barry Eichler and third place went to Jared Drenkow who also worked with Dr. Barry Eichler. The second and third place winners received \$400 each to present their posters at the Midwest Regional ACS meeting in Wichita KS.

At the 45th Midwest Regional Meeting of the American Chemical Society in Wichita, KS, October 27-29, 17 of the 26 Augustana Chemistry majors that engaged in summer research presented a poster of their research findings. Jeremy Erickson (and mentor Dr. Eichler) won first prize in the Organic Chemistry category of the Undergraduate Poster Competition.

For more information about all the students and their summer research projects visit Augustana's Chemistry website at www.augie.edu/academics/chemistry.

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(3) Nathan Truex, "Computing ensemble of reaction path by Hamilton-Jacobi equation" ACS-MWRM.

Robert Fick has received 1st prize (\$600) for his poster presented at the ACS-Sioux Valley poster competition at University of South Dakota. Robert and Taylor are also going to present their research (poster) at the 241st ACS national meeting Spring 2011 at Anaheim, California. Recently I have published a book chapter on "The fast marching method for determining chemical reaction mechanisms in complex systems," which appeared in a book *Quantum Biochemistry: Electronic Structure and Biological Activity* published by Wiley Int. I have submitted one article "Optimal non-linear dimension reduction scheme for classical molecular dynamics" which has been accepted for publication in *Journal of Mathematical Chemistry* recently. We are also compiling results generated from our summer 2010 research and hoping to write (when my teaching load dies down a little bit, hopefully!) and submit two articles in the journal for publication. Overall, my first year in research at Augustana is fruitful on all accounts.

On personal side, my daughter Torsha is now a second grader and my son just turned two in September 7 of this year. My daughter joined the dance gallery where she learns ballet. My wife Parshati and I were so thrilled to see her dancing at Orpheum Theatre Hall, a few months ago, in Downtown Sioux Falls. Both my children miss their grand parents who live miles away back in India. Life goes on and I look forward to find a little more time for my family in the coming years than I did the last two years.

Gary Earl, '62
CHEMISTRY IS FUN—TO TEACH!
I'm back! For only one course this semester, two next. I thought I was retired! So did everybody else. But when the call comes, you think about it long and hard and then go for it. Sandy must be pleased, I am out of the house, out

from under foot.

Seriously, it is a lot of fun to be around the department part of three days a week and have charge of 40 freshman students



Gary Earl

in Chem 120. We are just now (more than 2/3 of the semester is over) learning to learn together. The questions are starting to come and they are good ones. For example, today from a religion major comes the question following our introduction of dynamic equilibria of whether ozone is more likely to form from oxygen at sea level or in the stratosphere. So, they are starting to question and reason. Perhaps we are winning.

Can you imagine I would teach Chem 120 when, just a year ago, on retiring I had thrown out all my freshman course notes! So it is from scratch again. Perhaps that is good, perhaps not so good. All those favorite questions or best examples have to be reinvented. Some will just be forgotten. Perhaps that, too, is good. *But the stories I have from memory!*

With a goodly number of my Chem 202 students just now applying for medical school or graduate school, I have been writing a bunch of rec letters again this year. By next year, that should stop - hopefully!

I am terribly excited to see the new Biochemistry major and its popularity among the underclassmen. Several of us worked hard a number of years ago to get it off the ground. I knew it would be a popular major since the majority of students interested in Chemistry at Augustana really put down Bio and Chem as their major choices. Many of those people really wanted Biochemistry, it just wasn't on our books. So, congrats to Jared and the others involved in getting it approved through Curriculum Council and also through the general faculty

meeting. I predict the number of majors will soon double through this department. How exciting.

I took off the Interim and Spring semester last year and did not do research during the summer. I really missed the research part, but it has been fun to just sit in on the seminars, the poster sessions, etc., and see what progress was made last summer. Research is still our thing and it is so engrained now with NPURC, BRIN, EPSCoR and other funding that our students expect it! Have we won!!

Barrett (Barry) Eichler

BI have been hard at work over the past year with my research and improving classes.

Jeremy Erickson, Jared Drenkow, Bailey Jackson, and Evan Gardner worked in my labs over the summer. Jeremy and Bailey researched siloles for organic light-emitting diodes and sensors, and Jared and Evan worked on the synthesis of a polythiophene that will be used for DNA sensing. They all presented at the Sioux Valley Regional ACS Undergraduate



Barrett (Barry) Eichler

Poster Competition where Jeremy captured second place and Jared got third! They all also presented their posters at the Midwest ACS Regional Meeting in Wichita in

October and Jeremy took home the award for best poster in the organic division for the undergraduate poster session! I am very proud. I have also started to work with Jon Christensen '09 who is working for Dan Engebretson '91 at the USD Biomedical Engineering Program. Jon is working at the Augie labs with me to accomplish air-sensitive

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syntheses and to use our wonderful JEOL NMR. Next summer I hope to finish work to complete a paper on siloles and their incorporation into OLEDs. Another project I hope to start is to investigate the toxicity of siloles with Dr. Fathi Halaweish at SDSU. One student will synthesize the siloles at Augustana and another will perform the toxicity studies and computer modeling at SDSU.

I have taught Advanced Inorganic (341), in which my students performed a research project where they made a nickel catalyst that you cannot buy anymore in the United States and that my silole project cannot do without. Next spring I will be teaching Advanced Inorganic again and I am proposing research to attach DNA to quantum dots. My 2009 Chem 120 honors section performed research on quaternary ammonium methylcarbonate ionic liquids (quats) and two of the groups presented their research at the Augustana Research Symposium last April. There are currently five groups in my Chem 120H class and they are working on quats to perform NMR, X-ray crystallography and conductivity experiments. I have introduced on-line homework in all of my Chem 120 sections, which most students admit helps them understand chemistry

better. Next spring I am hoping to introduce on-line homework to the Chem 145 (Organic and Biochem) class after popular demand.

On a personal note, I enjoy spending time with my wife, Kathy, and my daughter, Maddie. Maddie, who is almost three, attends the Campus Learning Center across the street from GSC and she enjoys it very much. We spend our free time fishing at grampa's cabin in Minnesota and watching the ever-entertaining Minnesota Vikings.

Jared Mays

Greetings! For those of you that don't know me, I am one of the (relatively) new members of the Chemistry Department at Augustana. After completing my postdoctoral work as a medicinal chemist at the University of Kansas, I joined the Augustana Chemistry faculty in September 2009 and serve as the biochemist in the department. My first year and a half at Augustana has been extremely enjoyable, albeit a bit hectic at times, and I am pleased to share some of these details with you today.

Soon after arriving on campus, I became a member of a task force charged with the goal of developing a new Biochemistry major at Augustana. This interdisciplinary program was developed to include four departments on campus (Chemistry, Biology, Physics, Mathematics) and allow majors to "specialize" by taking elective courses that are appropriate for their anticipated careers and fit individual interests. In November 2009, the Augustana faculty approved the new Biochemistry major, which comes as both the regular major and one approved by

the American Chemical Society. Since that time, Dr. Mark Larson (Biology) and myself have served as co-administrators for the major and, this past fall, we have welcomed all 19 members of the first-year biochemists to campus. The initial reception for the Biochemistry major strongly suggests that it has been well-received and we look forward to its continued development in the years to come.

In addition to teaching courses in General Chemistry, Organic I, Organic II, and Biochemistry/Medicinal Chemistry, I was pleased to begin my research program on campus this past summer. Over a 10 week period, three Augustana students, a research associate, and I began our investigation of novel glucosinolates and isothiocyanates and their potential uses as anti-cancer agents. Glucosinolates and isothiocyanates are two classes of compounds that are naturally found in cruciferous vegetables, especially broccoli, and are some of the primary agents responsible for the cancer-preventing activities associated with diets rich in such foods.

Cody Lensing '12, Moundsview, MN, prepared a panel of 12 isothiocyanates and performed cell culture assays to determine their capacity to kill breast cancer cells. The results that Cody generated this past summer were quite exciting, as he found several of his compounds are significantly more potent than our reference compound naturally found in broccoli. Since that time, we have started collaborative studies with Dr. Peter Vitiello (Sanford

Research, Sioux Falls, SD) to further elucidate the effects that Cody's compounds have on cancer cells. Once these studies are complete, we anticipate publishing Cody's results.

Kayla Vastenhou '12, Dell Rapids, SD,

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Jared Mays

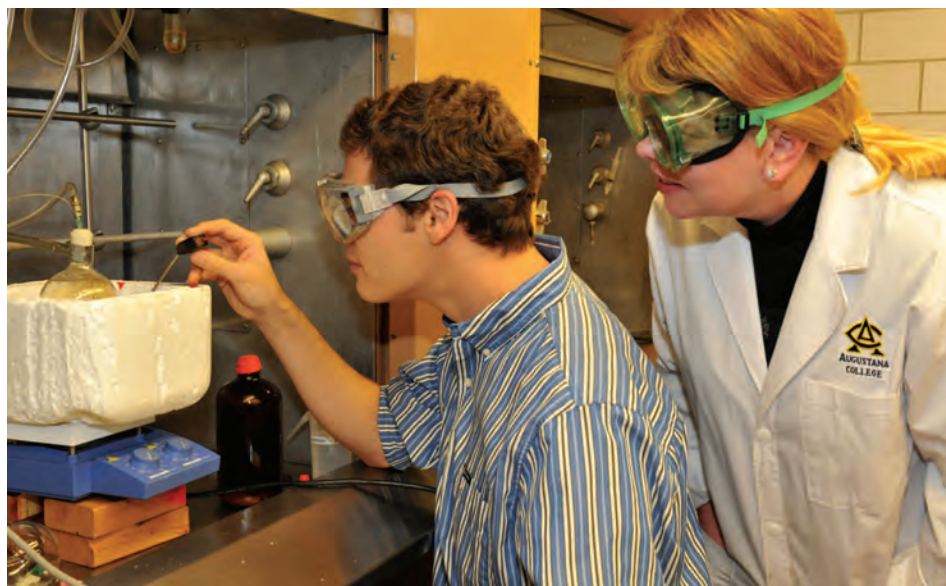
FROM THE FACULTY

spent her summer synthesizing two non-natural glucosinolate derivatives – a tremendous accomplishment for a 10-week period! Additionally, Kayla began a series of experiments to assess the enzymatic hydrolysis of her compounds while concomitantly developing a method to analyze these reactions using my new high performance liquid chromatography (HPLC) instrument. Kayla has been continuing this project this fall and we expect to submit the results of her studies for publication in 2011.

Jordan Clark '11, Owatonna, MN, worked on a variety of synthetic projects this summer, including the total synthesis of L-sulforaphane (the natural isothiocyanate in broccoli) and construction of one specific glucosinolate derivative. Although we ran into some synthetic difficulties, Jordan performed foundational research and developed an alternative method that will hopefully allow us to achieve these compounds this next summer.

Lastly, Michael Amolins worked with my group as a research associate this past summer. Mike is a 2007 graduate of Augustana and a friend and colleague of mine from my years at the University of Kansas, where he was pursuing his M.S. degree. Currently, Mike teaches high school chemistry and physics in Harrisburg, SD and looks forward to continuing his research with my group during his summer months "off."

Outside of Augustana, life has been equally as busy. Since moving to Sioux Falls last year, my wife, Jennifer, and I purchased our first home on the west side of Sioux Falls. So far, it's been a wonderful place to spend time together as a family with our son Elliot, who is now 18 months old. As with many first-time parents, Elliot certainly keeps us on our toes. Some of his recent "likes" include using the television remote control, climbing just about everything that has a foothold, dancing to music, and having Berenstain Bears and Curious George stories read to him. This coming spring, our family will



continue to grow and my wife and I will be celebrating the birth of our second child. Together, we look forward to the upcoming winter months, the holidays, and perhaps a stray blizzard or two.

Erin Mercer
I come to Augustana College as a recent graduate of South Dakota State University, Brookings, SD. My doctoral work was driven by the current demand to develop alternative fuels which are environmentally benign in their entirety and economically feasible to produce. In my dissertation study I optimized a heterogeneous catalysis system for biodiesel synthesis and developed a bench top method for quantitative analysis of the product and by-product. Benefits of the strong base developed for transesterification catalysis are its heterogeneous character and recyclability. Conditions were optimized at the bench top scale under mild temperature and pressure to react waste grease and work is on-going for industrial size scale up. Such a process has the



Erin Mercer

potential to permit the existing biodiesel industry to expand and a subsequent rise in bioenergy consumption.

The quality of biodiesel is determined by the level of free and bonded glycerol by-product. Elevated glycerol concentration leads to injector fouling and excessive carbon deposits. To date, the standardized analytical method utilizes gas chromatography (GC), however cost and availability to

manufacturers limits this technique for strict quality control. A bench top method was developed to extract the glycerol by-product by a solid phase extraction column, and concentrate and react it with anthrone coloring reagent for spectrophotometric analysis. The method developed has a detection range comparable to that of the established ASTM GC technique. With limited instrumentation and instruction necessary, the method is favorable for adoption by biodiesel manufacturers. My graduate work was funded by South Dakota EPSCoR and the State Department of Tourism, and an awarded EPA People, Prosperity, and Planet grant.

I earned my undergraduate BA from St. Olaf College, Northfield, MN, with

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degrees in American Studies and Chemistry. I welcomed the complementing schools of thought where humanities met the science mind, and enjoyed generating conversations between the two disciplines. My undergraduate research at St. Olaf included internships spanning across campus and state borders. Through a Research Education for Undergraduate program at South Dakota State University, I assessed the elemental and structural character of glomalins, a macromolecule a part of the composition of soil organic matter that serves as a cementing agent in the formation of aggregates. In an independent research project for the American Studies Department, I collaborated with a classmate studying the environmental health history of New Orleans, specifically as it relates to water. We extensively analyzed human efforts to control water and water as a means of transporting people and disease among other cargo. Lastly, working with the Physics Department on campus, I integrated chemistry and biology concepts and procedures into the introductory physics curriculum. I developed two new student laboratory exercises with a cross discipline emphasis, specifically designing and building a gel electrophoresis tray and a rudimentary Positron Emission Scanner, tailored to the physics laboratory. Contextualizing the dependence of interdisciplinary work fostered a passion for research then, and continues to excite me in my work today.

My husband to be is an Ole' classmate now working as a locomotive engineer for the Union Pacific. My efforts in grad school to develop an environmentally benign process for an alternative diesel fuel were complicated in mind but further motivated by his work, and we look forward to a future of literally supporting each other's career ambitions! In my free time, I am an avid knitter—as it seems there is no such thing as an overabundance of sweaters or scarves in this climate! My favourite read is *Animal Dreams*, by Barbara Kingsolver. My favourite pastime is playing Scatagories while listening to records, and as of late, catching rides on freight trains!

Brandon Gustafson

I earned my bachelor's degree from North Dakota State



Brandon Gustafson

University in 2004 and did research studying Indium-mediated Ene-yne cyclizations. Then in 2008, I earned my masters degree (from NDSU) with a focus on organic synthesis and methodology reactions. My thesis centered on Lewis acid catalyzed enantioselective Diels-Alder reactions using a novel isoxazolidinone template. While in Graduate School, I developed an interest in Nuclear Magnetic Resonance spectroscopy and since coming to Augustana College, have become the NMR Lab Coordinator. I also oversaw the installation of a new JEOL 400MHz NMR to replace a Varian 300MHz instrument. In addition to the NMR, I also supervise the laboratory supply preparation and manage the Chemistry stockroom.

Diane Pullman

I'm a chemistry laboratory instructor and began at Augustana spring semester of 2008.

I earned my chemistry degree from the University of Nevada.

Prior to coming to Augustana, I had worked in the industry for over 20 years doing environmental, pharmaceutical and governmental work. My focus has always been analytical chemistry. I spent two years at EPA Region 9, where I was part of a team doing organic synthesis research creating organophosphorus



Diane Pullman

molecules to be used in the study of PCB haptans. I also worked 7 years at a nutraceutical company doing method development and routine 3rd party analysis of natural products.

When I'm not working, I enjoy traveling, both within the US and to other countries.

Marlys Vant Hul '94

I've been collecting info and writing articles for the current newsletter.

We are trying something new this year, by putting the newsletter on the homepage and thus, saving a tree! We realize that some people don't have internet access so they just have to contact me and I will gladly send them a hard copy.

The years at Augustana have passed very swiftly but the students are as great as always...there are many precious memories over the years. I have a new title (secretary is out) I am now a Natural Science Division Coordinator; I mainly try to keep the various departments within

the division operational and functioning (not easy some days). I tell outsiders that the job reminds me of being a wife and a mother. One of the many benefits are the numerous weddings, etc. my husband and I are invited to.

I am still the Science Day Coordinator. I keep thinking that the event will burn out; but it seems to be



Marlys Vant Hul

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just as strong as ever. After 25+ years, I seem to know what works and what doesn't...the high school students love the first and last session where chemistry and physics professors and students "blow up" things. The small hands-on sessions give the high school students a different perspective on science and provide an opportunity for the science professors to interact with the students. We continue to offer the Y.T. Johnson Science Day Scholarships to two or three students each year and have been very successful with that recruitment commitment.

I am also busy gardening, reading, shopping, and following grandchildren's sporting events. It will be nice if/when the Sioux Falls teams no longer need to make the Rapid City run a couple times a year for each sporting event.

Please stop and visit us when in Sioux Falls or drop us an e-mail note (or use snail mail)...we love hearing from you.



AUGUSTANA MEMORIAL GIVING

Memorials are a great way of honoring the memory of a friend or relative. Many of you, give memorials to Augustana. You can designate where you would like that memorial to be used. I have listed a few of them for you to consider when making a memorial/or blessing us with a monetary gift. As always, we want to thank everyone for the various gifts that have been given to our department and/or the college.

–*Jetty Duffy-Matzner*

Chemistry Assistant Award

This award sponsors monetary awards that recognize outstanding laboratory assistants in chemistry who are nominated by their supervising professors and selected by the chemistry faculty. These students are normally seniors with three years assisting experiences.

Viste Endowed Research Fellowship

Dr. Gregory Schultz and his wife, Karen, established this fund to provide a stipend for a chemistry research student during the summer.

The summer of 2007 was the first year that we could support a student and Paul Draayer, from Sioux Falls Christian High, was the recipient and he did research under Dr. Gary Earl & Dr. Duane Weisshaar. This past summer, Shik Ki Li, from Hong Kong, worked with Dr. Jetty Duffy-Matzner for his research and this summer 2009, Jeremy Erickson from Lincoln, NE, will work with Dr. Barrett Eichler.

The Chemistry Student Travel Fund

This fund uses money raised from selling Chemistry Laboratory Manuals to the students. It sponsors students to present their research at various regional and national meetings. Last week of March, Dr. Jetty Duffy-Matzner and seven students flew to the National American Chemical Society Meeting in Salt Lake City, Utah, where the students presented the research conducted last summer.

The Chemistry Gift Account

This fund is used to purchase or repair special instruments, etc. when the general fund is inadequate.

2010-2011 CHEMISTRY MAJORS STUDENT SCHOLARSHIP RECIPIENTS

Chemistry Department Endowed

Laura Goemann, Wells, MN

Garrett Memorial

Ashley Hanson, Sartell, MN

Y.T. Johnson Pre-Medical School Scholarships

Rachel Hurley, Canton, SD

Y.T. Johnson Science Day Scholarship

Neal Gregerson, Sioux Falls, SD

Rachel Tinker, Spirit Lake, IA

Ruthellen Tornberg, Harrisburg, SD

Mayfield-Skartvedt Chemistry/Music Scholarship

Jeremy Erickson, Lincoln, NE

John Saetveit Memorial Scholarship

Katherine Behrens, Circle Pines, MN

Viste Chemistry Scholarship

Laura Goemann, Wells, MN

Arlen E. Viste Endowed Scholarship

Cody Lensing, Mounds View, MN

Elizabeth A. Viste Endowed Scholarship

Trent Anderson, Lake Benton, MN

CHEMISTRY AWARDS

Chemistry Assistant Award:

Shannon Cumiskey, Worthington, MN
Adam Dittmer, Coon Rapids, MN
Michael Stutelberg, Woodbury, MN

Analytical Chemistry Award:

Trent Anderson, Lake Benton, MN

CRC Freshman Award:

Coral Hanson, Andover, MN
Annie Pfeifle, Rapid City, SD

Organic Chemistry Award:

Jared Drenkow, Sioux Falls, SD

Outstanding Inorganic Award:

Huy Nguyen, Vietnam

Outstanding Chemistry Graduates Sioux Valley Section of ACS:

Distinguished Senior in Chemistry:

Adam Dittmer, Coon Rapids, MN
Michael Todt, Moorhead, MN

Honorable Mention:

Nicholas Bleeker, Redwood Falls, MN
Neil Patel, Worthington, MN

AUGUSTANA CHEMISTRY ALUMNI NEWS

Mike Amolins '07 is teaching high school chemistry in Harrisburg, SD and did research with Dr. Jared Mays in the chemistry department at Augustana this summer.

Nicholas Bleeker '10 married Joni Nelson. Nick is getting his Ph.D. in Medicinal Chemistry at the University of Minnesota.

Jon Christianson '09 married Erika Knock on March 13, 2010. Jon is in graduate school at USD and Ericka is in med school at Sanford USD SOM.

Adam Dittmer '10 married Laurie Wallace on July 10, 2010. Adam is obtaining his Ph.D. in chemistry at the University of Minnesota.

Jeremy Haugen '02 and Sadi are parents to a new baby girl, Tillie Jane, she joins her two-year-old brother, Justin Tate.

Jeff Jeremiason '90 is an Associate Professor, Environmental Studies Chair at Gustavus Adolphus College.

Alex Johnson '09 is employed at POET in Sioux Falls, SD.

Heidi Reuter '07 married Steve Mandt on August 7, 2010. She will graduate from pharmacy school at the University of Minnesota in 2011.

Dean Waldow '84 is Professor of Chemistry at Pacific Lutheran University. He is recipient of a number of external grants and typically mentors 2-4 research students a year.

Matt Jorgensen '95 moved back to Brandon, SD and is employed with the Sioux Falls Police Department in the Crime Lab.

Jerrid Kruse '02 is an Assistant Professor at Drake University.

Mike Berven '04 is doing his residency in San Antonio, TX.

Rich Weaver '94 lives in Casper, WY and is employed with Doctor Fermentos Beer & Wine Supplies.

Will Buchanan '06 is doing his post-doctoral at Notre Dame and got married to Abby this fall.

Milton Hanson '60 joined his classmates and celebrated his 50th class reunion from Augustana in October during our Sesquicentennial homecoming.

Kelsie Betsch '05
<http://prl.aps.org/accepted#articlesatomicmolecularandopticalphysics>

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DEPARTMENT OF CHEMISTRY

2010 CHEMISTRY ALUMNI FILE UPDATE

What's ν (nu) With You? Fill us in on what's happening in your life. If you find that any of the information mentioned in this newsletter is inaccurate, please let us know.

Name: _____
 FIRST MAIDEN MARRIED

Year Graduated: _____ Phone: _____

Address: _____

Email: _____

Occupation/Place of Employment: _____

Graduate/Professional School Preparation in Progress or Completed: _____

Personal News/Professional News you want us to know: _____

If you know of potential students for Augustana College, please provide us with their name, address and phone number so that we may contact them.

Name: _____

Address: _____

Phone: _____

Name: _____

Address: _____

Phone: _____

Mail to: **Department of Chemistry**
Augustana College
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Or email information to: *marlys.vanthul@augie.edu*