





## chemistrydistillations

Newsletter of the Department of Chemistry at The College of William and Mary

Fall 2011

www.wm.edu/chemistry



### From the Chair

I now know what eternity feels like. I can't remember what it was like not being chair. I was hoping that this year was going to be much less hectic than last year. Truthfully, it was less hectic, just not by much. I guess the biggest new is that Pat

Hilger, the guiding force/center of the department, finally retired in August. She had been planning to retire last year. She and her husband Greg had put their house up for sale. After no luck for many months, they took it off the market. They put it up again this May, but they expected that they would have the same luck as the year before – none. A couple from California was taken with their floor plan, and were excited

about buying the house. They requested a quick closing date. Pat broke the news on July 11th, and July 29th was her last day in the department. While Pat and Greg may have sold their home, they have not secured an alternate place to call home. In fact, this is deliberate. They plan to stay with friends and family for the next year or so before finding an area (probably near Atlanta) before settling down. Pat's new email address has something like 'homeLS4now' in the name. Pat has been the longest serving secretary in the department in my memory. She will be sorely missed. I am still in the denial phase. My colleagues now mumble

under their breath things like ... "I sure am glad I'm not chair now."

So losing Pat was unexpected. With Pat's departure, so goes ten years of institutional memory below the chair level. What was also unexpected is the complete loss of institutional memory just above the chair level. Dean Strikwerda left at the end of June to become president of Elizabethtown College. At the same time Sue Peterson stepped down as the Dean of Undergraduates to return to Government. Finally, Margaret Fonner, who was Betty Sandy's replacement and who controlled the fifty five million dollar budget for Arts and Sciences, moved back to VIMS to become the Director of Sponsored Programs. Since my memory is suspect at best, it will be an interesting years as people with little experience try to learn the ropes. Of course, the College has to hire these people first.

As Pat was saying goodbye, we were joined by Doug Young. Doug was hired in December to replace Bob Orwoll. Hopefully, Doug won't be frightened off by the loss of our secretary his first week. Doug's expertise is in the bioorganic area. Bob is a physical chemist. Because we have a number of retirements stacked up, we have been recruiting using a very wide net. As faculty are hired, the net will get smaller as our needs in teaching and research areas will become more rigid. As I mentioned last year, Dave Thompson is retiring at the end of this academic year. We will be searching for his replacement in the fall.

It has been a big year for awards in the Department. Elizabeth Harbron wins the award for most awards last academic year. The string began in the fall with the Henry Dreyfus Teacher-

Scholar award. She was honored at Charter Day with the Thomas Jefferson Teaching Award. Late last spring she learned that she was awarded one of three University Chairs for Teaching Excellence. She and Carey may be the only husbandwife team to have both been awarded this chair. Two of the twenty Plumeri awards for faculty excellence went to chemists: JC Poutsma and Lisa Landino. Lisa and Rob Hinkle were promoted to full professor last year as well.

Our instrumentation holdings have not changed in the last year, except for donations of several mass spectrometers arranged by JC Poutsma. Our application

to the NSF to replace the NMR was not funded (it took two rounds of applications to replace the NMR last time). This application was made to the Chemical Research Instrumentation and Facilities program through the chemistry division at the NSF. We were planning to submit a revised proposal this year, then found out that the program was suspended for this year. Had we know of the suspension, we would have submitted the grant to the NSF's Major Research Instrumentation program. Institutions are limited to two acquisition grants per year. Our request would have competed with those from other science departments and VIMS. Replacing or upgrading the NMR is quickly becoming a critical issue.

This year's class size was just slightly smaller than last year. The ratio between graduate school and health careers was not as skewed as last year. The enrollment bubble that occurred

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in fall 2009 is starting to affect our upper level courses. This fall over ninety students signed up for Instrumental Analysis. This number is an all-time high. Fortunately, only seventy are enrolled in the lab, but even that number is more than we can handle comfortably. The bubble was less pronounced in Physical Chemistry. Many students may be putting it off until their senior year.

This newsletter is the first one published with Susan Mulholland at the helm. She was very sad to see Pat retire and lose that institutional wisdom with the newsletter.

I am personally looking forward to the start of fall semester when I can finally relax with merely a normal schedule.

Chris Abelt

#### Editor's Note:

As Chris mentioned above, this issue of distillations is my first as a staff member of the Chemistry Department. Louise Menges finished last year's newsletter after retiring. And, she provided much guidance this year on the nuts and bolts of getting it done. I couldn't have finished this year's newsletter without her! However, so much history has been lost with the recent staff retirements and I absolutely know that some information from alums has been lost in translation. So please, please, please forward me any information you would like to share (forward it again, if you don't see something you may have previously sent). The faculty and staff absolutely cherish the bits of information received from former students!

Susan Mulholland

## Homecoming 2010 Reception Recap

The annual reception for Chemistry Alums was held on Friday evening during last October's Homecoming. (See the photos on Page 10.) We counted 25 former chemistry majors attending, some of whom were accompanied by a spouse, a sibling, and/or children. It was a special treat for the chemistry faculty to recall with them the good old days, when the tests were more difficult, the labs ran longer, and everyone was above average. Gene Mason '51 of Williamsburg gets the award for being the earliest graduate attending. Among the attendees were three couples who apparently found that refluxing reactions and constant temperature baths set the mood for romance: Constance O'Doherty 75 & Bill Barnes '75; Kristen Adams '94 & Phil Smith '90 and '91 (MA); and Sarah Robinson '05 & Diego Vicente '05.

Make our Chemistry reception part of your Homecoming 2011 festivities! (See back cover for invitation information.)

## **Current Faculty**

Chris Abelt, organic, chair
Carey Bagdassarian, biophysical
Debbie Bebout, biochemistry
Randy Coleman, organic, biochem
Gary DeFotis, physical
Elizabeth Harbron, organic
Rob Hinkle, organic
Lisa Landino, biochemistry
Bob Pike, inorganic

**Bob Pike**, inorganic *Garrett-Robb-Guy Professor* 

J. C. Poutsma, analytical Margaret L. Hamilton Professor

Gary Rice, analytical

Jonathan Scheerer, organic

**Dave Thompson**, inorganic *Chancellor Professor* 

Kristin Wustholz, physical

Douglas Young, bioorganic

**Emeriti** 

Cirila Djordjevic, 1992

Dick Kiefer, 2003

Steve Knudson, 2010

Bob Orwoll, 2010

Bill Starnes, 2006

**Phased Retirement** 

Dave Kranbuehl, 2009–2012

**Adunct Faculty** 

Homer Smith Fall 2011, Spring 2011

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dekran@wm.edu

## **Transitions and Faculty News**

## Patricia Hilger retired this year.



Patricia Hilger came to the Chemistry Department in 2000. Many alumni would naturally assume that the strength of an academic department lies in the talents of the faculty, but in reality a department such as ours is only as strong as the supporting staff. Fortunately for us, the one constant that the department has

been grateful to have in recent years is a highly skilled and motivated staff. Nevertheless, it will be a phenomenal stroke of good fortune to find another individual as talented and supportive as Patricia Hilger, who retired at the end of July as the Administrative Assistant for the Department. Pat held this position since the Fall 2000 term, which we think is probably a modern day record given the variety of idiosyncrasies within such a large department that she had to deal with on a daily basis.

The term "administrative assistant" by no means reflects the numerous duties that Pat kindly assumed and adeptly performed, and no one really knows or can appreciate how critical her position was to the everyday operations of the department other than the three different department chairs whom she steadfastly served over the years. In fact, there is by no means sufficient space here to list all of the extra little things she took care of on top of the "normal" operations of the department. Hard to believe that someone else will assume the responsibility of providing clean linens in the lounge kitchen and dust the student mailboxes!

Pat considered us as part of her extended family (or children), and she definitely kept us in line. Yet everything that she did was done at the highest level of professionalism. Pat was always quick to point out that this position was far more enjoyable than a similar position she held in a law office prior to coming to William and Mary. She was always a pleasure to work with, and we will miss her gracious smile.

Pat and her husband Gregg plan to travel for a while to visit relatives and friends before deciding where to settle down, but most likely they will move closer to the grandkids in the Atlanta area. We hope that retirement brings even greater adventures and "Life-is-good!" moments for many years to come.

## We welcome a new tenure track faculty member...



Douglas Young is originally from Colorado and attended college at the University of Puget Sound in Tacoma, Washington. He obtained a B.S. in both Chemistry and Biology while researching metal-containing liquid crystals, as well as Drosophila development. He then received his Ph.D. in bioorganic chemistry in 2008 at North

Carolina State University under the supervision of Dr. Alexander Deiters. His research focused on the photochemical regulation of biological processes and the synthesis and investigation of small molecules for biological screening. Upon the completion of his Ph.D. he was awarded a NIH postdoctoral fellowship to continue his studies at The Scripps Research Institute under the guidance of Dr. Peter Schultz, developing therapeutic applications for the in vivo incorporation of unnatural amino acids. Doug is excited to join the William & Mary Department of Chemistry in the Fall of 2011 and plans to continue his research on the interface of biology and chemistry. Doug has already recruited four undergraduate students to work in his laboratory. In addition, the Department received a stipend supplement for graduate student to work with him, the first increase to our base allocation for graduate students in recent memory.

## and offer congratulations on two promotions!

**Rob Hinkle and Lisa Landino** were promoted to full professors this year.



Rob joined the department in 1996 and has been running around campus and the Historic Triangle ever since. Yes, he is an avid runner, and mountain biker and motorcycle rider, but he also collaborates extensively with various departments on campus and at VIMS in Gloucester. Recently, the U.S. Department of Energy (DOE) awarded the College

of William and Mary \$500,000 to study various aspects of using wild aquatic algae as both biofuel feedstock and as a medium for helping to remediate contaminated waterways. Rob leads the main campus investigation of novel ways to extract lipids and carbohydrates from the algae. With the help of his full slate of graduate and undergraduate researchers, Rob is also investigating the catalytic use of Bi(III) compounds for the synthesis of ethers, and the stereoselective addition of nucleophiles to cyclic oxocarbenium ions.

Rob emphasizes that he is extremely grateful for a collegial department that allows flexibility in what he teaches, and especially to all of the outstanding students who have contributed to research. "William & Mary is a remarkable place with remarkable students – I'm lucky to be here!"



Lisa joined the department in 2001. Since then she has made liquid nitrogen ice cream with a governor, in addition to the pig-brain milkshakes that have fueled research she and her students have conducted throughout the years. Lisa studies the chemical roots of neu-

rodegenerative conditions exhibited in many diseases such as Alzheimer's, Parkinson's and amyotrophic lateral sclerosis (ALS), also knows as Lou Gehrig's Disease. Her research lab focuses on how molecular byproducts of breathing can lead to damage of the body's proteins, specifically the oxidative damage to the protein tubulin. When she is not in her office, lab, or classroom, you might find her walking, gardening, or taking a class at the rec center. Her best research ideas often surface when she's not trying to find them.

## Congratulations to Lisa Landino (again!) and JC Poutsma

Lisa Landino was also a recipient of a Plumeri Award for Faculty Excellence, along with JC Poutsma, in recognition of achievements in teaching, research and service.

From her biochemistry courses and extensive advising to public outreach and College-wide leadership, Lisa has had a broad impact at William & Mary. More than three dozen undergraduates have assumed roles in her research, which has received consistent funding from the National Institutes of Health, including a recent \$415,000 award!



JC is a leader in the gas phase ion chemistry community. With his larger-than-life personality in the lecture hall, he is described as one of the few experimental physical chemists with a simultaneously firm commitment to working with freshmen and

sophomores and helping them master complex material and grow as scientists. Poutsma has recently been working on a new collaborative class extending the Biology Department's "phage lab" using his mass spectroscopy lab to try to identify proteins associated with the genetic code determined by the sequencing done in biology lab. "We're going to chop 'em up and put 'em in my mass spec and weigh 'em. This is how we'll move from genetics to proteomics."

## **Congratulations to Elizabeth Harbron**



Elizabeth Harbron was recognized multiple times this year for her colorful blend of teaching and research. She was one of six U.S. chemists to be named Henry Dreyfus Teacher-Scholars. The award recognizes chemistry faculty who not only are accomplished researchers themselves, but who

also incorporate undergraduate students into their research. Elizabeth's group creates and studies fluorescent systems that change their properties in response to an external stimulus. "So much of organic chemistry is taking white powder A and reacting it with clear reagent B and producing white powder C," says Elizabeth. "But everything in my lab either is very colorful or changes color in response to light or some other stimulus. The inherent appeal of light and color can't be understated." Putting the "cool factor" in her work certainly comes in handy when recruiting students into her lab group!

Soon after being named a Henry Dreyfus Teacher-Scholar, Elizabeth was awarded the College's Thomas Jefferson Teaching Award, an honor that is especially significant when you consider that she teaches Organic Chemistry I and II - you may recall that these courses have large enrollments - in fact in 2010, Elizabeth's Orgo I class included 200+ students.

To top off the academic year, during The William & Mary Board of Visitors' April meeting, Elizabeth was awarded one of three University Professorships for Teaching Excellence. The professorships are presented to recognize excellence in teaching and to encourage faculty exchange on topics related to teaching development. "W&M is blessed in having many distinguished scholars with a deep commitment to teaching, and I am delighted that we can recognize three of our very best," said William & Mary Provost Michael Halleran. "Each one of these faculty—from three very different fields—demonstrates an enviable ability to engage, challenge and inspire their students." Congratulations, Elizabeth!



Elizabeth Harbron (center) checks on undergraduate researchers she mentors. Desmarie Sherwood '13 (left) and Clare LeGuyader '11

## 2011 Chemistry Concentrators and Their Destinations

<sup>©</sup> Elizabeth Pylant Bransford Allen study abroad in Tanzania M H Stephen Eric Ammann graduate studies in chemistry, U. Illinois **Elizabeth Lynn Bower** pharmacy school, Virginia Commonwealth U. Steven Justin Bradley undecided **Stephanie Ann Brooks** medical school, U. Vermont Kirkland Leland Castellano work as research assitant, NY Medical College, Pharmacology Dept. H Joseph Dale Christesen graduate studies in chemistry, U. North Carolina-Chapel Hill Marisa Clare Cirenza internship with Charlottesville Catholic Fellows Program H Hillary Meghan Clark graduate studies in chemical biology, Johns Hopkins U. H Matthew David Dembo graduate studies in chemistry, U. Tennessee <sup>φ H</sup> Ashley Marie Hoover graduate studies in chemistry, U. California-Berkeley <sup>Φ</sup> Mark Anjalan Jayanathan medical school, U. Virginia <sup> $\phi$  H</sup> Robert Frederick Lambert graduate studies in chemistry, U. Texas-Austin **Kyrstin Lynnice Lane** medical school, U. Virginia Stephen William Laws graduate studies in chemistry, W&M H Clare Lee LeGuyader graduate studies in chemistry and biochemistry, U. California-San Diego medical school, Trinity Medical School Nicole Dina Leger Frederick Weston Loehr medical school, Eastern Virginia Medical School H Nicholas Adam Lopez intern at Christian Life Center M Jacob Joseph Machin work for a year, then attend medical school Michelle Marie McKently work for a year, then attend graduate school **Mathew McMillan** seeking employment Melissa Ann Montagna environmental consultant, ENVIRON International Corp. Rebecca Anne Obniski graduate studies in biology, Johns Hopkins U. H Kyle Robert Overdeep graduate studies in material science and engineering, Johns Hopkins U. <sup>φ M</sup> Jacob Pike Perkinson instructor for Natioal Outdoor Leadership School, then medical school **John Calvin Petrie** undecided John Matthew Pothen community health research on Fulbright Grant (India); Ph.D. in Sociology <sup>M</sup> Geoffrey Curtis Ramsdell medical school, Eastern Virginia Medical School <sup>©</sup> H Courtney Arielle Roberts graduate studies in organic chemistry, U. California-Los Angeles Joy Crystal Russell graduate studies in chemistry, W&M **Clinton Cleveland Schiavone** graduate studies in chemistry, W&M <sup>φ M H</sup> Ellen Hutchins Speers graduate studies in chemistry, Northwestern U. Kathryn Rachel Stephenson studies in pre-nursing, George Mason U. Tao Sun seeking employment Elizabeth McLean Terrell volunteer teacher for WorldTeach organization Isabelle Jacqueline Thibau undecided Andrew An Quoc Tran not reported Lenna Elizabeth Walker not reported H Pei Wang travel Elizabeth Alexandra Welshhans studies in physical therapy, St. Louis U. <sup>© M H</sup>Vincent James Yannello graduate studies in computational operations research, W&M

Φ PBK Monroe Scholar Honors in Chemistry

## 2011 Master's Candidates and Their Destinations

Justine Arrington
Norah Bate
Tara Hagedorn
Todd Hovey
Madeline Nestor
Kathryn Peth
Toda Horistor
Kathryn Peth
Toda Horistor
Kathryn Peth
Toda Horistor

Madeline Arrington
Serduate studies in analytical chemistry, Purdue U.
Seeking employment
graduate studies in chemistry, U. California-San Diego
graduate studies in chemistry, Northwestern U.
Level I Analyst, Microbac Laboratories
graduate studies in chemistry, U. Texas-Austin

# Chemistry MS Program Built to a Vibrant Departmental Presence

For the third straight year, at least six students have been admitted to the Chemistry MS program, enough to sustain a vibrant presence in our community of young scholars. As alumni and friends of the Chemistry Department, you know this is a special Department committed to providing all students with the skills, resourcefulness, and academic credentials they need to excel professionally, whether they leave William & Mary to pursue PhD in Chemistry, a professional degree, an industrial position or some other passion. While an excellent reputation provides motivation to apply, an admission acceptance rate of over 80%, nearly twice the undergraduate admission yield, suggests the Department offers something other high-quality graduate programs are missing. What could it be?

Informally surveying our new MS candidates and recent grads, three themes other than program quality were recurring in their reasons for choosing the W&M MS program. The first was the scale and personal nature of our program. Department faculty carefully review application files to find students that are the best fit for the needs of their research program. Offers of admission are tied to conducting Thesis research with a specific faculty member, and faculty usually contact applicants before admission offers are made to ensure compatibility. The Chemistry MS students enjoy the same high level of contact with faculty and meaningful involvement in publishable research projects that has been the cornerstone of our nationally recognized undergraduate program.

Location also contributes to the high acceptance rate. Some Chemistry MS students use the 15-24 month program to finish research started as an undergraduate. Others are able to save money by living with their parents while earning their MS. For one of students admitted this year, remaining at W&M provided the opportunity to participate in college athletics for one more year.

The third theme that ran through student responses was program flexibility. In addition to courses offered by the Chemistry Department, MS candidates can use courses in Applied Science, Biology, Marine Science and even Public Policy to satisfy degree requirements. One of the students admitted this year received a BS in Biology and was able to craft a curricular plan for timely degree depletion that included some courses he missed as an undergraduate.

Whatever the reasons Chemistry MS candidates have for choosing W&M, the Chemistry faculty look forward to their assistance in furthering our educational and research missions.

## Thanks to our donors...

The Chemistry Department benefits from some very generous donors who have established endowments enabling us to further our academic mission. Some of these funds are designated for particular purposes, and some may be used for a

variety of pressing need. Sometimes the thank you notes just slip through the cracks, but our students and faculty feel so fortunate to be the recipients of such generosity. The following list indicates how these endowments were used this past year to support our teaching and research goals.

## Debra L. Allison Summer Fellowship in Chemistry

Supported an academically distinguished chemistry student participating in summer research.

## **Patricia Pound Barry Chemistry Scholarship**

Provided four annual scholarships to academically distinguished undergraduate students majoring in chemistry. The 2010-11 recipients were: Courtney Roberts '11, Lars Dunaway '12, Brittani Collins '13, and Hye Joo Yoon '14.

## James T. & Evelyn A. Cranmer Memorial Scholarship

Supported two undergraduate students participating in summer research in chemistry.

## **Ferguson Chemistry Endowment**

Funded the purchase of four laptop computers for the physical chemistry laboratory and one tablet computer to be used as a classroom teaching aid.

## **Charles E Flynn '34 Memorial Chemistry Endowment**

Funded the repair of a piece of teaching laboratory equipment, a pressing need of the Chemistry Department.

#### **Robert L. Greene Endowment**

Supported a promising chemistry student in summer research.

## **William G. Guy Endowment**

Funded an annual chemistry award. This year's recipient was Vincent Yanello.

## **Hillger - Roberts - Kranbuehl Chemistry Endowment**

Funded the expenses for our Chemistry Seminar program.

## **Kranbuehl - Thompson Graduate Fellowship**

Funded an increased stipend for a chemistry graduate student.

#### Gene J. & Frances E. Schiavelli Memorial Endowment

Provided support for an additional undergraduate summer research student.

## support Chemistry!

Endowed funds and gifts for programs like the Plumeri Award make a significant impact on our educational enterprise. Alternatively, annual giving offers some level of financial security and allows the department the opportunity to conduct longer term planning. If you are interested in contributing to the needs of the department on a regular or annual basis, please consider donating to the unrestricted Chemistry Fund (Account 2967). There are two mechanisms through which you can make such contributions. To contribute by mail, make your check payable to The College of William and Mary Foundation. Please be sure in your check's memo area to note how

you are designating your gift. Mailing address:

The College of William and Mary

P.O. Box 1693

Williamsburg, VA 23187

In addition, online donations can easily be made as well by going to the chemistry web site at www.wm.edu/chemistry and clicking **support chemistry** in the left navigation bar.

## **News of Our Alums**

It is wonderful to hear from you—please continue to keep us up to date with what is going on in your lives! Information about how to contact the Department is on the back page of this newsletter, or you can contact your favorite professor, who will forward the message.

## Attention W&M Chemistry alums who are on Facebook!

Consider joining the "William and Mary Chemistry Alumni" Facebook interest group—joining our interest group is a good way to keep in touch with the department and with other Chem alumni who have already joined.

### Class of 1955

**John Marsh** sent in the following remembrance of Ed Katz in response to last year's newsletter:

"Ed made all of us students feel like friends and was extremely helpful. I will never forget that my choice of medical school was made possible on the basis of one of his suggestions. I was applying to a variety of schools, and he suggested Yale, one I had not considered and knew nothing about. He said they emphasized research and thought it might be a reasonable place for me, mentioning two previous W&M students who had gone there. This was a lifechanging decision...After graduation and further training in internal medicine, cancer research and treatment and hematology...It became my home for the next 31 years and led to a very satisfying career in teaching, patient care, and research, both lab and clinical. If Ed had no made the Yale suggestion to me, my life and that of my family would clearly have been very different. I will always be grateful to him for that.

It was also my pleasure to work with Ed and Alfred Armstrong one summer in the 50's on the stage crew of The common Glory, Paul Green's "Symphonic drama" at the Matoaka Lake Amphitheatre. This was a somewhat different environment from the Chemistry Department, but certainly enjouyable!"

#### Class of 1964

We received word from his family that **Robert F. Kimberlin II (MST)** passed away on August 29, 2010. Bob continued to study chemistry throughout his 37 years of teaching high school chemistry and physics in Illinois. Bob was often called "Pops" by his students because the students found him easy to talk to.

We also saw an obituary for **David Pond** in the October 11, 2010 issue of *C&E News*. David received his Ph.D. from University of South Carolina in 1968 and completed postdoctoral studies in photosynthesis chemistry at Columbia University in 1970. David then joined Eastman Kodak and retired in 2003 from a position as vice president. David served on many boards and as an officer in many regional organizations after retirement, including ACS, Foundation for Excellence in Public Education, and the Kingsport (Tennessee) Symphony Orchestra.

## **Class of 1965**

Jeffrey Nickel also wrote to us in response to Ed Katz' passing:

"I graduated in 1965 with 11 others majoring in chemistry. While at the College, my activities included swimming, baseball and fraternity. Studying chemistry was challenging to say the least. My memories of Ed Katz are-

- 1. He always lent and ear to me and provided support in difficult days, and
- 2. He looked often to be nodding off in the Presbyterian Church across the street from Monroe Hall.

Ed was full of humor and a very pleasant person. Probably the last time I saw him would have been June, 1965. What a blessing to have lived to 95 years."

#### Class of 1992

**Kevin Gwaltney** (BS 92 & MA 93) sent the following information to Chris Abelt. "I am an associate professor at Kennesaw State University. It seems that there have been many exciting changes at William and Mary since I was there. We at KSU are also going through some exciting changes. In my 10 years at KSU, I have seen the student population increase by nearly 10,000 students, making KSU the third largest university in Georgia, my department double in size, now having 21 full-time permanent faculty with more on the way, and the number of chemistry and biochemistry majors increase to over 500.

A new building, which will house biology and chemistry laboratories for teaching and research, is currently under construction here, and we plan to add an M.S. degree to our offerings, which currently include B.S. degrees in chemistry and biochemistry and a master of arts in teaching chemistry."

#### **Class of 1985**

**Sarah Kelley Potash** visited the department last November with her three sons and mother. Sarah is working 3 days per week as an OB-GYN physician in Morristown, NJ. Her oldest son, an eighth grader, already likes chemistry...a candidate for the W&M Class of 2019?

## Class of 1996

**Cynthia Martin Southern** is a dentist practicing in Pulaski, Virginia, since May 2000.

**Ivana (Verona) Yang** was promoted to Associate Professor, Department of Medicine and Center for Genes, Environment and

Health, University of Colorado Denver and National Jewish Health. She reported to Bob Pike that she is doing research in genetics and epigenetics of innate immunity, asthma and pulmonary fibrosis, as well as working on a crossword. Regarding the crossword, she says "They can be tough to write..."

#### Class of 1997

**Rebecca Casauban** touched base with Debbie Bebout. "Boston's still treating me well and work is good. I am a senior scientist in medicinal chemistry at Sirtris, a GSK company, I am on the global Women in Science (WISE) committee for GlaxoSmith-Kline, and I'm an active member of the Boston chapter of the Healthcare Businesswomen's Association. I also got married last year and now we're expecting our first baby in December!"

In October 2010, **Michael Gaylor** (MA) commented that it was "great to see the HUGE growth and evolution of the Chem program and facilities! You guys have done an AMAZING job! btw....I stopped by in late August to try to catch up with you crazy Chem kids and regrettably was unable to find you. My arrival was very impromptu. I was on my way out of town to start a new position and I just took a chance that I might catch you in your offices catalyzing the intellectual brilliance of tomorrow's chemical scientists.

Speaking of getting out of town...I successfully defended my Ph.D. in August (a couple months behind schedule, but isn't this always how it goes?) and am now drinking from the proverbial fire hose of intellectual craziness that is my first year as an assistant professor with joint appointments in the Departments of Chemistry and Environmental Science at Davis and Elkins College in Elkins, WV. The new position is very stimulating, but WOW!..... it is a huge amount of work! Of course, you kids warned me about that, didn't you? :-)

All the best to everyone in the Chem Dept. who lent a hand crafting me into the lean, mean analytical machine that types here before you today. Hope to drop in for a visit real soon."

#### Class of 2000

**Peter Graham** writes "In 2008, I joined the Department of Chemistry at St. Joseph's University where I teach general and inorganic chemistry. My research program at St. Joe's engages undergraduates in the synthesis of transition metal complexes that have the potential to activate inert bonds. Specifically, tungsten and molybdenum complexes are sought that promote the incorporation of carbon dioxide into other organic substrates."

**Theresa Evans-Nguyen** reports "I gave birth to our first child on 7/10/11: Oliver, who is wonderfully adorable. I'm working for Draper Laboratory in Tampa, FL where my husband is a forensic chemistry professor at the University of Tampa. We recently wrote (and won!) our first grant to study dirty bombs with mass spectrometry!"

#### Class of 2001

Sarah Prunier Law will be teaching in a Montessori Elementary

classroom in the fall and her husband, David, is starting a post-doc in Toronto. Their son Nathan is turning 2.

Gary DeFotis received news from **Daniel Havey**:

"In 2006, I finished my doctoral work at the University of Colorado in Boulder, CO, studying physical and atmospheric chemistry with Professor Veronica Vaida. My thesis was on vibrational spectroscopy of acidic species important to photochemical processes in the Earth's atmosphere. Following this, I accepted a postdoctoral research position from 2006-2008 at the University of Maryland in College Park, MD with Professor Amy S. Mullin. While there, I developed an innovative method for measuring weak collisions involving  $\mathrm{CO}_2$  and  $\mathrm{HOD}$  by means of high-resolution transient IR-absorption spectroscopy. From 2008-2010 I was a National Research Council Postdoctoral Research Associate at the National Institute of Standards and Technology (NIST). I worked closely with Joseph T. Hodges in the Process Measurements Division. My research at the NIST focused on development of advanced spectroscopic techniques for optical metrology of small molecules and aerosol particles that are important in atmospheric remote sensing missions and climate change. Most recently, I accepted a tenure-track faculty position at James Madison University in Harrisonburg, VA. I secured approximately \$100,000 in external funding in my first year and have an emerging research program using photoacoustic spectroscopy to study optical properties of atmospheric

Additionally, I have two daughters. Their names are Holly and Kerrigan. Holly is 4.5 years old and loves lasers. Kerrigan is almost 2 years old and loves to dance. This crew keeps me busier than all of the aforementioned science stuff."

#### Class of 2003

**Ronald Quinlan** is at the Naval Surface Warfare Center, Carderock Division in Bethesda MD as a staff scientist in the Materials and Power Systems Branch.

**Kimberly Dendramis Gregersen** reports "I'm officially graduated with my Chemistry PhD from the University of Washington and now I am a Research Engineer in Boeing's Computational Materials group. Life is good!"

## Class of 2004

Crystal Irwin (BS 04 & MA 06) checked in with Gary Rice "I'm still working at the place I went to after college. I started in the QC lab there and did that for a little under 2 years. In Jan of 2008 I was promoted to Process Improvement Chemist (a day job) and we were bought out by BASF in September of that year. We're still transitioning but officially BASF now. That job pretty much included watching over the quality of 3 lines of production. Anything from updating recipes, and investigating customer complaints to dealing with the lab-including being on call 24-7. Shortly after in November of that year I was somewhat promoted again (at least that's what they tell me) to Process Chemist- same job only now I'm also in charge of maintenance and engineering on the 3 lines in ad-

dition to the quality stuff (and still on call but now I get a crackberry which is fun). In my personal life, I've moved to Virginia Beach and am getting married next September:)...his name is Doug...and my name will change to Crystal Taylor."

**Kathryn Taylor-Pashow** reported to Bob Pike that "Scott and I are expecting our first baby this December! We are still living in Aiken, SC, and I am working at Savannah River National Lab."

## Class of 2005

**Lynda M. Nguyen** filled in Bob Pike that "After I graduated from W&M, I got my Pharm.D. from UCSF (thanks to Dr. Pike's and Dr. Coleman's letters of rec) in 2009. I completed a first year residency at VA Long Beach and just finished second year residency at Kaiser Permanente Southern California. I am starting my first "real" job at VA San Francisco. I just moved back to SF a week ago. Whereas as a student I used to live a few blocks from the ball park, I now live on the other side of the city within walking distance to the beach. Dr. Pike, please let me know if you are ever out here to catch a Giants game! I will try to make it to homecoming in a future year."

## Class of 2006

**Austin Wiles** wrote "I am now a second year pathology resident at VCU/MCV. I recently won the 2011 Autopsy award from our program. I'm pretty much working all the time, but I enjoy it."

## Class of 2007

**Emily Dugan** is about to start her third year at Jules Mastbaum High School in Philadelphia, teaching chemistry to inner city kids.

**Tristan Tronic** reports that "My big news is that I got married in June. My wife Elaine and I met in grad school. She's in the bioengineering department at the University of Washington. I'm still in grad school at UW working in Jim Mayer's lab. I'm working on a project on catalytic oxygen reduction. This past summer I had an internship with Chevron doing zeolite research at their facility outside San Francisco. It was a really good experience for me to be able to get a taste of industrial chemistry. I got to see some of their pilot-scale plants in operation, and got a tour of the full scale refinery. The Metal Organic Framework work I did at W&M definitely helped me get that position and get a lot of science done while I was there."

**Deana Hadley Miller** married Ronald Miller on May 14, 2011 in Vinton, Virginia. She then graduated from the University of Virginia's School of Medicine on May 22, 2011! She and her husband are moving to Durham where she will be starting her pediatric residency at Duke University.

#### Class of 2008

Jordan deButts reports "I'm living in Boyce, VA and work for Lorne Bair Rare Books, an antiquarian bookseller specializing in the literature and art radical and social movements. I'm planning to start graduate school in the fall of 2012 for my masters in Library Science. I was able to attend Rare Book School in Charlottesville this past July on a scholarship provided by the Middle Atlantic Chapter of the Antiquarian Booksellers' Association of America. I was just made a board member of The Green and Gold Equestrian Foundation for W&M's equestrian team. The foundation will allow monetary donations as well as others--like saddles, equipment, and even horses. Hope all is well and not too hot in Willliamsburg! I am planning on coming to Homecoming this year (for the first time!) so I'll plan on coming to the Chem. Dept. reception."

Jefferson Bates was in Williamsburg in December and ran into Bob Orwoll downtown. Jefferson is in his third year in the Chemical and Materials Physics doctoral program at UC-Irvine. He is doing theoretical modeling for his dissertation research. Jefferson remarked on how well W&M prepared him for graduate school and on how nice the weather is in southern California.

### Class of 2009

Hannah Caitlin Cohen wrote Randy Coleman in April: "I have exciting news - I found out this past weekend that I was selected to receive a National Defense Science and Engineering Graduate (NDSEG) fellowship from the Department of Defense! The fellowship will pay for my tuition, fees, and for a generous stipend for the next three years. Most importantly, it will give me freedom to pursue new areas of research. Since entering grad school, I have been interested in biomaterials and wound healing and now, with this funding, I plan to collaborate with another professor in my department to pursue projects in this area...Notification of this fellowship has reinvigorated me and I feel ready to tackle the next (and most likely final) three years of my program. Reaching this point took years of hard work but also the guidance of excellent mentors along the way. I wanted to thank you for your support and mentorship. I truly appreciate everything you have done for me and couldn't have done it without you."

**Megan Hilton** has been employed at CH2M Hill in Chantilly, VA for 5 years as an environmental chemist. She married Frank Morrison in 2009.

**Jacob Kuperstock** was promoted to being an official "Clinical Medical Student" at Stanford Med.

## **Snapshots from our 2010 Chemistry Homecoming Reception**

At the reception but not caught in a photo were Debra DelMar '80, Mike Gibson '93, Jeff Kushan '85, Carol Humphries Lindsay '80, Jamie Tylor '05, and Sandra Poteat Thompson '90 & '91 (MA).



Karen Luebs Gartman '84 with Senior Chemistry Major Kate Stephenson



Diego Vicente '05, Sarah Robinson '05, and Lisa Landino



Senior Chemistry Major Clint Schiavone and Gene Mason '51



Kristen Adams Smith '94 and Phil Smith '90 & '91 (MA)



Diego Vicente '05, Sean Hart '90 & '93 (MA), the Big Cheese (Chris Abelt), Gary Rice, and Eugene Aquino '88 & '91 (MA)



Ken Updike '76 and Bob Orwoll



Enjoying some refreshements are Bill Barnes '75, Constance O'Doherty Barnes '75, and David Kranbuehl



David Kranbuehl enjoying some time with David Mastbrook '65 and Margaret Mastbrook



Bob Orwoll relaxing with Mi Jung Lim '08



Jake Kuperstock '09 and Bob Pike



Senior Chemistry Major Hillary Clark and Shannon Kim '09



Christine Heath Bondi '93 & '97 (MA) and her future chemists?



Gary Rice and Suzi Argentine Olds '90

Debbie Bebout, Kristin Wustholz, Elizabeth Harbron, and Lisa Landino



Jan Stouffer '80 and Randy Coleman are catching up

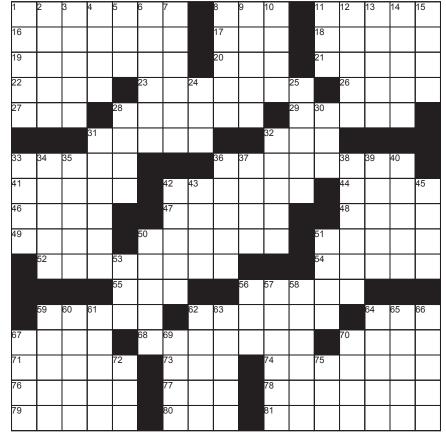


William Gabler '09, Bob Orwoll, and Jerry Evans '80

#### It's a Gas Robert D. Pike

### **ACROSS**

- 1. Cholesterol drugs
- 8. Acidic gas
- 11. Roundabouts
- 16. Fertilizer gas
- 17. Just like
- 18. It's called a "tall" at Starbucks
- 19. Excited
- 20. Caught
- 21. Hues
- 22. Deep sleep cycles
- 23. Law suit goal sometimes
- 26. Unfixed gas
- 27. Article in Paris Match
- 28. Resizes
- 29. Anyone
- 31. Silver, e.g.
- 32. Gelatinous mess
- 33. A substance separated from a mixture
- 36. Nobel winner
- 41. Part of TNT
- 42. Like many sweaters
- 44. Cool in 90's slang
- 46. S curve
- 47. Stinky gas
- 48. Tuscan city
- 49. Father
- 50. Camilla Parker
- 51. Egyptian board game
- 52. Bronze, e.g.
- 54. Top scout
- 55. A deer, a female deer...
- 56. Fossilized sap
- 59. Tie or racetrack
- 62. Natural gas
- 64. Mason School deg.
- 67. Food for 61 down
- 68. Personal aviation milestone
- 70. Onomatopoeic word
- 71. Letter closer
- 73. Letter opener
- 74. Rock genre
- 76. Norway to the Norwegians
- 77. Deadly gas
- 78. In view
- 79. Tennis ball gas
- 80. Assualt weapons
- 81. Hair aplenty



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### **DOWN**

- 1. Mad dog warning sound
- 2. With 3 down, describes 47 across
- 3. See 2 down
- 4. Just like
- 5. The tax man, abbrev.
- 6. Delivery method for 24 down
- 7. Calm
- 8. Horrible comic character
- 9. Chunky shoes
- 10. Deceased
- When the Vikings game is scheduled, abbrev.
- 12. Nomenclature term for the C=N group
- 13. Goes off on
- 14. Disinfectant gas
- 15. What's more
- 24. Pharma. product
- 25. Kind of enemy

- 28. Ten to the minus 18 prefix
- 30. Garden tool31. Portable room divider
- 32. Jeans brand
- 33. \_\_\_\_ Slaughter, Hall of Fame baseball player
- 34. Finger or number
- 35. Wombs
- 36. Humble
- 37. Plant balm
- 38. Seem
- 39. Addams family helping hand
- 40. Artist's stand
- 42. Intact
- 43. Paramagnetic gas
- 45. London art galllery
- 50. Electrophoresis transfers
- 51. Sybil
- 53. Fuss
- 56. Top 100 movies org.
- 57. Believer in universal unity

- 58. Foul up 59. Haughty
- 60. San Antonio team
- 61. Royal pet
- 62. Reaction of an alkyne and an azide
- 63. Band section
- 64. Shapeless masses
- 65. Block of synthetically-produced crystal material
- 66. Church sections
- 67. Rand and others
- 69. Industrial and laboratory watchdog org.
- 70. Mendel's samples
- 72. Box on a form
- 75. Born

## Make our Chemistry reception part of your Homecoming 2011!

The Department is having a pre-game reception for chemistry graduates in ISC I on Saturday, October 22, starting at 10:00 am in the second floor lobby (above the Barksdale Field entrance). We look forward to seeing you there. If you can join us, please try to let us know by October 14. You can e-mail us at smulholland@wm.edu, give us a call at 757-221-2550, or return this form to:

Susan Mulholland
Chemistry Department, College of William and Mary
P.O. Box 8795
Williamsburg, VA 23187-8795

P.O. Box 8795 Williamsburg, VA 23187-8795		
Yes, I plan to attend the Chemistry reception on Satu	urday, October 22	, 2011, at 10:00 am.
Name	Class of	No. of guests
Even if you're unable to come, please consider doing and mailing this form to us at the above	•	-



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