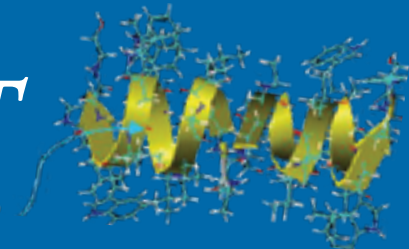


# BLUE HEN CHEMIST



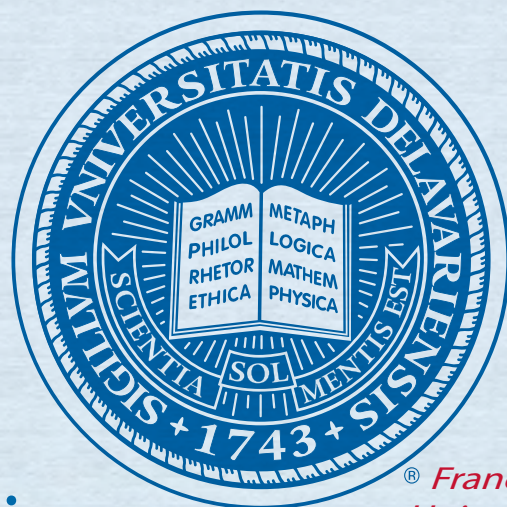
University of Delaware, Department of Chemistry and Biochemistry Annual Alumni News Magazine  
NUMBER 39 AUGUST 2012 JOHN L. BURMEISTER, EDITOR

## On the Cover “WINGS OF THOUGHT”



**ENROLLMENT TSUNAMI**  
TOTAL UNDERGRADUATE CHEM/BIOC  
ENROLLMENT GROWS 47% IN A DECADE!

**UD CBC FACULTY CONTINUE  
DOWN THE PATH OF EXCELLENCE**



## ON THE COVER....

(cover photo by Ambre Alexander)

The University of Delaware's newest public work of art was dedicated Tuesday, May 8, to the institution's founder, the Rev. Francis Alison, and to faculty members who reflect the 18th century educator's "scholar-schoolmaster" ideal.

The 8-by-10 foot "Wings of Thought," created by acclaimed sculptor Richard Deutsch, is an open book, carved on the left side with depictions reflecting Alison's intellectual interests and the "Heck Reaction" in honor of UD faculty member and Nobel Laureate Richard Heck. A bronze quill pen stands next to the book.

The sculpture was commissioned to be the centerpiece of Mentors' Circle, between Hullihen Hall, Morris Library and Memorial Hall. The circle was created in 2001 to recognize UD faculty members who have been honored for excellence in teaching and advising by installing bricks bearing their names.

Now, with the addition of the sculpture, the circle itself has been reconstructed. The bricks were replaced by new ones engraved with the names of the faculty honorees, and granite pavers displaying the names of recipients of the Francis Alison Award, the University's highest faculty honor, also were installed around the sculpture.

-UDaily, 5/9/12

## EXCELLENCE IN TEACHING CHEM/BIOC FACULTY AWARDEES INCLUDE:

**Susan E. Groh** (2010), **Henry N. Blount, III** (1981), **John L. Burmeister** (1979, 1968), **Carl A. von Frankenberg** (1978), **Burnaby Munson** (1973), **Elizabeth Dyer** (1969), and **William A. Mosher** (1964).

Excellence in Advising Award winners from CHEM/BIOC: **Susan E. Groh** (1999) and **Jeanne Victoria Orner** (1997).

CHEM/BIOC Francis Alison Faculty Award recipients: **Burnaby Munson** (1992) and **Roberta Colman** (1985). The granite tablets honoring the Alison Awardees are incorporated into the circle surrounding the Wings of Thought sculpture.

As is the case with virtually all works of art, beauty (and appreciation) are in the eye of the beholder. Your Editor likes it! My only quibble involves the fact that the Heck Reaction engraved thereon is not identified as such.

## ® Francis Alison: Father of the University of Delaware

*The Rev. Francis Alison (1705-1779) of Pennsylvania and Delaware was a Presbyterian minister and professor who founded New London Academy, which would become the University of Delaware. His pupils included Declaration of Independence signers Thomas McKean, George Read and James Smith.<sup>1</sup> (mkfox)*



*The Rev. F. M. Alison.*

<sup>1</sup>mkfox, . Daily Kos. Kos Media, LLC, 2006. 0. <<http://www.dailykos.com/story/2006/12/09/279236/Forgotten-Founding-Fathers-Francis-Alison>>.



The new \$132 million Interdisciplinary Science/Engineering (ISE) Building, scheduled for completion by September, 2013 (southeast corner of Academy and Lovett).

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## HONOR ROLL OF GIVING TO THE DEPARTMENT

The Blue Hen Chemist is an annual magazine distributed by the Department of Chemistry and Biochemistry at the University of Delaware. Its purpose is to reach out to our extended CHEM/BIOC family members: current residents, alumni, friends, retirees and benefactors, both individual and corporate; to keep them abreast of the goings on in the Department, to put old family members and new ones in touch with one another, and to give credit and thanks to the contributions of all.

The individual contributions of all, past and present, is the foundation that has built and continues to grow the Department and advance the mission that maintains our tradition of excellence in teaching and research. The financial support of the benefactors of the Department, whose generous contributions make it possible to recognize excellence among our students and faculty, gives the Department the opportunity to bring in world renowned speakers who further advance the knowledge base and skills of our faculty and students, and allow us to continue the mission of recruiting the best and brightest students and faculty to join our ever growing family.

Please, on behalf of the Department, accept these sincere thanks for the generosity of all. So, without further ado, we would like to express our sincere appreciation to the following companies and foundations for their unrestricted financial support of the Department during 2011-2012:

|                    |                    |                                  |
|--------------------|--------------------|----------------------------------|
| Amgen, Inc.        | Covidien           | Imperial College Press           |
| AstraZeneca        | Dow Corning        | Merck Company Foundation         |
| The Boeing Company | Exelon Corporation | Siemens                          |
| Cengage Learning   | Exxon Mobil        | Supercritical Fluid Technologies |

The Department would like to acknowledge, with extreme gratitude, financial support from the following alumni, parents, faculty members, staff members, and friends during 2011-2012. Your support has always been important to us; however, in these stressed financial times, it is like manna from heaven!

|                                  |  |                                    |
|----------------------------------|--|------------------------------------|
| Trisha L. Aciri, M.D. (BS96)     | John J. Baldwin, PhD (BS56)                | Thomas R. Bowen, MD (BS96)         |
| Bernice E. Ahlstrom (BS61)       | Qi-Bin Bao (PhD87)                         | Dr. and Mrs. Neil W. Brister (PAR) |
| Barbara M. Albanese (MS90)       | William E. Barnette, Jr., PhD (BS75, MS77) | Sharon L. Brunelle (BS83)          |
| Joseph A. Albanese (PhD91)       | Thomas P. Beebe, PhD (FAC)                 | Randy A. Bull (PhD81)              |
| Linda P. Anderson (FRIEND)       | W. Brooks Bigelow, PhD (BS65)              | John L. Burmeister, PhD (FAC)      |
| Wayne M. Anderson (BS49)         | Thomas B. Blank (PhD96)                    | Eileen L. Burns (STAFF)            |
| Christina H. Antonopoulos (BS09) | Walter G. Blenderman, PhD (BS71)           | Daniel J. Butcher (PhD95)          |
| David P. Arnott, PhD (BS89)      | Svilen S. Bobev, PhD (FAC)                 | Noreen C. Campbell (BS70, MS73)    |
| Eric L. Astle (BS98)             | Karl S. Booksh, PhD (FAC)                  | William J. Calhoun, MD (BS75)      |
| Robert P. Avis (MS65)            | John R. Boon (BS85)                        | Zhisong Cao (PhD92)                |
| Petras V. Avizonas (MS59, PhD62) | Aditya P. Bose (BS10)                      | Audrey E. Cepeda (BA82)            |
| Robert D. Bach, PhD (BA62, MA64) |  | Wenfang D. Chen, Esq. (MS95)       |

continued on page 28



Thank You

## FROM THE CHAIR



**Professor and Chair Klaus Theopold (b. 1954) Vordiplom, 1977, Universität Hamburg; Ph.D., 1982, University of California, Berkeley; Postdoctoral, 1982-1983, Massachusetts Institute of Technology**

2012 is a year of transition and turbulence all around, even if you discount the Mayan belief that the world might end next December. The Middle East is in violent upheaval and Old Europe is on the verge of falling apart over a sovereign debt crisis. Here at home, the Supreme Court appears to have decided that buying broccoli is good for you, when

### 2012 is a year of transition and turbulence all around

considered a tax rather than a penalty. Oh yes, it is an election year and chances are that we will all be joined in contempt of Congress soon, for pushing discretionary spending (think NSF and NIH) over the proverbial financial cliff in fine bipartisan gridlock. Academia is no exception; witness the unceremonious firing and rapid rehiring of UVa's President by a governing board worried about her lack of 'strategic dynamism' in the face of rapid transformations of the landscape of higher education (MOOCs anyone?).

It is fitting, then, that change should also come to our Department. Alas, in contrast to the chaotic happenings all around us, the transition we are effecting is orderly and much anticipated. Moreover, I am convinced that it will be a win-win scenario for all involved. After five years 'in the corner office', I am pleased to welcome **Prof. Murray Johnston** as the next Chair of the Department of

Chemistry and Biochemistry. Needless to say, I am grateful for Murray's willingness to take on this role, thereby consolidating our recent tradition of rotating the administration of our affairs amongst senior members of our current faculty. You can read about his plans and aspirations elsewhere in this newsletter (see p. 11). Being Chair is a learning experience, if nothing else. If there be one lesson I shall take away from the past five years, it might be this: *People are very unlike molecules, but not therefore any less interesting or complicated.* Whereas the chemist in me aims to uncover some immutable truth about the behavior of inanimate matter (preferably containing chromium), in administration the best one can hope for is an approach to consensus and occasional satisfaction at an outcome. Of course, being surrounded by a group of bright and independent people, consensus can prove elusive, and success may be in the eye of the beholder. Thus, to maintain one's equanimity, it helps to have some core beliefs to cling to. The rest is common sense and good colleagues, be they faculty, staff or students; of these our Department fortunately has a great number and I want to conclude this swan song by thanking all of them for their support and forbearance. Once more, then, there follows a brief summary of events that transpired this past year.

The University of Delaware has lost a prominent chemist. After serving as Provost for the past three years, **Prof. Tom Apple**, Ph.D. '81, has recently departed Newark to assume the position of Chancellor of the University of Hawaii at Manoa - Aloha 'oe, Tom! However, several of our colleagues continue to serve the University in various administrative roles. Thus, **Prof. Doug Doren** continues as Associate Dean for the Natural Sciences and **Prof. Charlie Riordan** is still

Thank you all for your support and forbearance

the University's Vice Provost for Graduate and Professional Education. Also continuing with their respective assignments are **Prof. John**

People are very unlike molecules, but not therefore any less interesting or complicated

**Koh** as Associate Director of the Delaware Biotechnology Institute and **Prof. Kate Scantlebury** as Director of the Secondary Education Program of the College of Arts and Sciences. **Prof. Brian Bahnson** will assume **Prof. Koh's** position in January, 2013. The University's budget situation remains strained, as indicated by the continued lack of funds for a desperately needed renovation of our organic teaching laboratories. On the positive side, work is about to begin on a project to prevent the infiltration of water into our new Magnet Hall, which houses many millions of dollars worth of NMR equipment. The new Integrated Science and Engineering (ISE) Building appears to be on track for its scheduled completion by F13.

As in past years, change is the only constant, and - in an apparent paradox - this year was no different. I am particularly pleased to announce the arrival of a new faculty member for the next academic year. **Prof. John Newberg** commences his appointment as assistant professor on July 1. John completed his graduate work with Prof. John Hemminger at UC Irvine in 2005. After a stint as Senior Development Engineer with Intel Corporation, he returned to academe as a postdoctoral fellow in the laboratory of Hendrik Blum at the Lawrence Berkeley National Laboratory, receiving an NSF Postdoctoral Fellowship in 2010. John will initiate a research program in environmental chemistry aimed at an understanding of the chemistry at solid-air interfaces. His principal experimental technique will be ambient pressure XPS, and he has already laid plans



Photo by Kathy F. Atkinson

Prof. Colin Thorpe has been named the Willis F. Harrington Professor of Biochemistry

# OUR FACULTY CONTINUE ON THE PATH OF EXCELLENCE

Profs. Mary Watson (left) and Sandeep Patel (far right) win NSF CAREER Awards



Photo by Evan Krape



Sue James was recognized a 'HR Liaison of the Quarter'

for the construction of such an instrument. In another indication of the passing of time, we congratulate Prof. Sandeep Patel, who has been promoted to Associate Professor with tenure effective September 1, 2012. Gratifyingly, there have been no retirements or departures this year. We all like our jobs well enough to stick around for at least one more year!

As with the faculty, so it goes with the Department's valued staff. During this past year, the Assistant to the Director of Graduate Studies and departmental webmaster, Jen Durkin, left the Department to pursue other opportunities. Senior Records Analyst Mike DiMauro had to submit to a double knee replacement and the prolonged recovery period eventually segued into retirement. Mike's position is temporarily filled by Elaine Koronik. We were glad to welcome a new NMR Spectroscopist, Guangjin Hou, who will assist Steve Bai in the burgeoning NMR Facility. Another recent addition to our staff



Photo by Kathy F. Atkinson

UD Provost Tom Apple

is Rick Bernard, a CITA II, who will assist IT czar Patrick McMahon with keeping the Department's computers humming. Notable praise was bestowed upon one of our longest serving staff members, when Sue James was recognized a 'HR Liaison of the Quarter' in October 2011.

In our continuing campaign to preserve and improve the research infrastructure of the Department, we have recently turned our sights to the Mass Spectrometry Facility, which

no longer served all the needs of its various constituencies. I am very happy to report the first major success of this effort. NSF has funded a 'major research instrumentation' (MRI) proposal for the acquisition of a new high resolution mass spectrometer; the PI for this proposal is Prof. Charlie Riordan and the proposal was largely organized and written by two of our entrepreneurial assistant professors, namely Profs. Don Watson and Joel Rosenthal, serving as co-PIs. As usual, several of our colleagues have attracted honors and prizes during the past year. To wit, Prof. Colin Thorpe has been named the Willis F. Harrington Professor of Biochemistry, in recognition of his achievement as scholar and educator, thereby joining the small cadre of named professors in Chemistry and Biochemistry. Earlier in the year, our colleague Prof. Andrew Teplyakov received the 2012 Delaware ACS Section Award and Prof. Harold White was honored by McMaster University (in Hamilton, Ontario) with the Howard Barrows Award for Excellence in Undergraduate Teaching. Our young colleagues continue to gather accolades. Continuing in the footsteps of earlier recipients, this past year saw the bestowal of NSF CAREER Awards upon no less than two of our assistant professors, namely Profs. Mary Watson and Sandeep Patel. Finally, Prof. Joel Rosenthal has

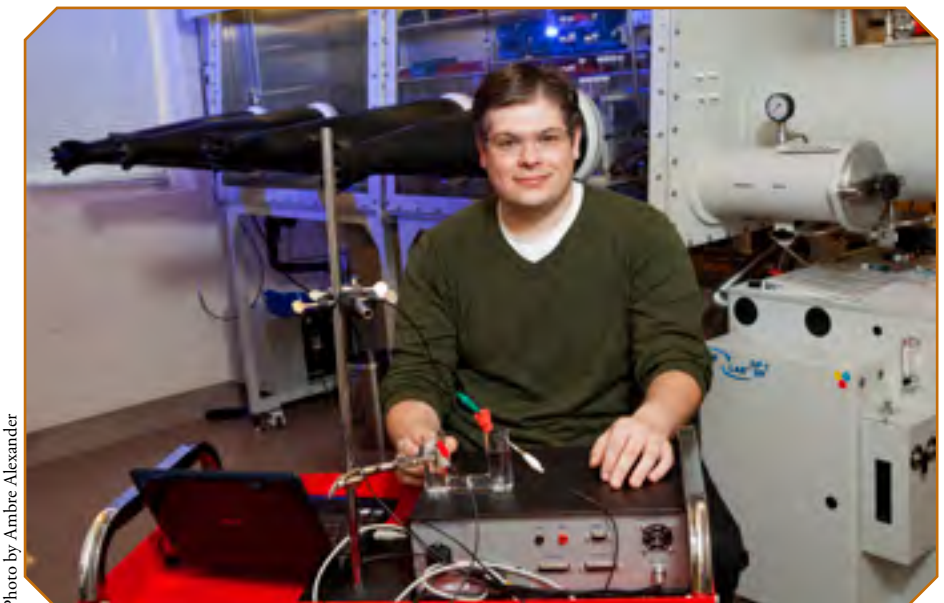


Photo by Ambre Alexander

Professor Joel Rosenthal



Photo by Evan Krape

Front row (from left): Derek Ahneman, Keywan Johnson, Sara Martin. Back row (from left): Jesse McAtee, Donald Watson.

It is always a real pleasure on this occasion to acknowledge the support that the Department has received during the past year from its alumni and friends.

recently been notified of his receipt of a coveted 2012 DuPont Young Professor Grant.

It is always a real pleasure on this occasion to acknowledge the support that the Department has received during the past year from its alumni and friends. As is our custom, Associate Chair **Prof. John Burmeister** has provided more extensive coverage elsewhere in this newsletter; however, I wish to express our appreciation for some outstanding contributions. This year's pride of place goes

to **Carolyn Cochrane Kent**, M.S., '66 and her husband **John R. Hale**, whose generous bequest will create graduate fellowships named after them. Carolyn was a student in the research group of **Prof. John Burmeister**. Once again, **Mr. David Plastino**, B.S. '78, has made a substantial gift to the University, underwriting both the 'David A. Plastino Scholars Program' at the University level and the 'Alumni Undergraduate Research Fellows Program' in the Department of Chemistry and Biochemistry. This summer the 6<sup>th</sup> class of Fellows will conduct their research in faculty laboratories throughout the Department. In another tradition, the **David Lipp Family Foundation** has continued its unrestricted support of the Department. Its generous donation has allowed us to award summer research fellowships to five graduate students working with our assistant professors.

Last, but not least, I want to express my gratitude to all of you who sent us donations throughout the year. Your tangible and continued support is critical to our well-being

and our current students are the beneficiaries of your magnanimous support. Your spirit of giving back to your alma mater and to the generation of students coming after you is both inspiring and much appreciated. We shall be most grateful for your lasting support in the coming year.

When you read this, I shall have 'returned to the faculty'. Looking back, it has been an honor and a privilege to serve as Chair of this fine Department. With any luck, I have done some good and no lasting harm! Reaching out to our alumni, wherever you are, has been one of the pleasures of the job.

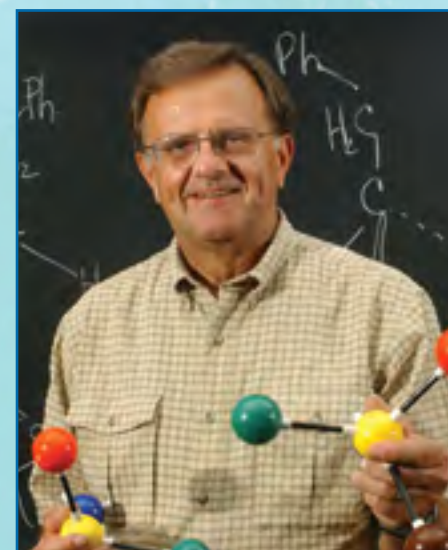
I wish all of you nothing but the best in the years ahead.

With fond regards,

Klaus Theopold

## From the Associate Chair: ENROLLMENT TSUNAMI!

*John L. Burmeister, Alumni Distinguished Professor and Associate Chair (b. 1938) B.S., 1959, Franklin and Marshall College; Ph.D., 1963, Northwestern University*



In the beginning, i.e., in 1964, when I arrived in Newark, there was CHEM-101/102 General Chemistry. It was subdivided into three sections (B,K, and N). Our Chairman, **Prof. Bill Mosher** (FAC45-72, CHAIR 45-69) – "The Wammer" – gave one lecture per week to each section in BRL 101. Two hours per week were spent in small "recitation sections" taught by junior faculty like yours truly and senior graduate students. They were populated (best to worst) in CHEM-101 on the basis of a brief, but very effective, math/chemistry placement exam written by **Prof. Wallace McCurdy** (FAC 59-92) – "Qually Wally." Assignment to the CHEM-102 recitation sections (top to bottom) was based on the students' grades in CHEM-101.

Although no distinction was made in the students' grade transcripts, the depth and breadth of coverage in the three sections was quite different, reflecting their different enrollment patterns. Section B was restricted to CHEM and CHEG majors. Section K included all remaining science and engineering majors. Section N was made up of students majoring in nursing, agriculture and home economics, plus A&S walk-ons majoring in arts, humanities, and social sciences.

By the time I became Associate Chair in 1974, section B had morphed into CHEM-111/112, section K had become CHEM-103/104, and section N had remained CHEM-101/102. The Honors sections of CHEM-111/112 were subsequently added in Dover (at Wesley College, (F76-S79) with **Prof. Burnaby Munson** as the instructor)

and in Newark (F78-present, with **Dr. Gary Weddle** (PhD76) as the initial instructor). The Honors sections of CHEM-103/104 were initiated in F79, with **Dr. John Garavelli** as the initial instructor. Our BS/BIOC majors were added to CHEM-111/112 in 1989.

Our current seven-tiered freshman chemistry program was rounded out by the additions of CHEM-100 Chemistry and the Human Environment (initiated in 78F by **Prof. Conrad Trumbore** (FAC 60-97), CHEM-105 General Chemistry (also initiated in 78F, for nursing majors, by **Prof. Tom Brill** (FAC 70-06) and CHEM-106 Elementary Bioorganic Chemistry (initiated in 81S, for nursing majors, by **Prof. Colin Thorpe**). The latter two courses, created at the request of the Nursing Department, represent distillates of, respectively, CHEM-101/102 and CHEM-213/215 Elementary Organic Chemistry plus CHEM-214/216 Elementary Biochemistry, with strong emphasis on the latter. It should be noted that **many** schools have further condensed the chemistry experience for nursing majors into **one** semester – the so-called "GOB" (general/organic/biochemistry) course.

I began what has become a continuing, 38-year tour of duty as our Associate Chair with two primary goals in mind. Having come from a liberal arts college background (Franklin and Marshall), where a one-sized general chemistry course fit all majors, I was determined to titrate the special needs of our disparate user groups by providing an array of freshman courses. Given the foregoing description, it should be obvious to the reader that this goal has been realized.

Secondly, given the relative intimacy of my classes at F&M, and the pedagogical effectiveness that this afforded, I was determined to keep our class sizes small – at least by state university standards. Keeping the size of all of our sections to, at most, the capacity of BRL 101 (246 students) became my operative ceiling.

Back in the Dark Ages, the enrollments in

CHEM-101 and CHEM-103 were quite comparable. In 72F, for example, 608 students were enrolled in the former, 631 in the latter. However, their subsequent enrollment trends have been in opposite directions. In 08F (the last year that all of our lecture sections could be accommodated in BRL 101 or smaller rooms), only 222 students were enrolled in CHEM-101, versus 954 students in CHEM-103.

The enrollment tsunami hit in 09F, and the CHEM-103 enrollment jumped to 1192. All four CHEM-103 lecture sections, taught (two each) by **Prof. Jim Wingrave** and **Ms. Mary Beth Kramer** (MS76), had to be relocated to Smith Hall – the only classroom building whose lecture halls were large enough to accommodate them. There they have remained. The concomitant stress on the CHEM-103 laboratory sections was even greater. To deal with the anticipated enrollment of 1280 CHEM-103 students this coming fall, we had to retrofit a fourth CHEM-103 laboratory room (QDH063). The resulting schedule will involve 57 CHEM-103 laboratory sections meeting morning, afternoon, and night, Monday through Friday, plus Saturday morning.

Happily, relief for CHEM-103/104 is in sight. The teaching wing of the new Interdisciplinary Science and Engineering (ISE) Building is scheduled to open in 13F. Present plans call for all CHEM-103/104 labs, as well as all BISC-207/208 labs, to be moved to the ISE Building. The laboratory exercises for CHEM-103/104 have been redesigned to involve more life science – relevant experiments.

The enrollment tsunami did not stop at the CHEM-103/104 shore. It moved inland, creating the largest CHEM-321/322 (the so-called "pre-med" organic chemistry course) enrollments in our history. This fall, 421 students will populate the two CHEM-321 lecture sections, taught by **Dr. Geoffrey Sametz**. Since only one laboratory room is available for this class, we have had to add two **Sunday afternoon** laboratory sections

(for the first time in our history) to the daily schedule noted previously for CHEM-103!

As gigantic as these numbers may seem to our older alumni, I must hasten to point out

that, over-all, we still compare quite favorably to our peer institutions. This is shown, dramatically, by the comparison shown below.

| University  | Delaware | Boston College | Maryland | Virginia | North Carolina | Notre Dame | Penn State |
|---|----------|----------------|----------|----------|----------------|------------|------------|
| <b>Total Undergraduate Enrollment:</b>            | 16,937   | 9,860          | 25,857   | 15,078   | 17,628         | 8,371      | 36,815     |
| <b>Average Gen Chem Lecture Size (Fall Term):</b> | 123      | 188            | 181      | 260      | 358            | 200        | 378        |

The unsung heroes and heroines in all of this have been our hard-working Laboratory Services staff: **Dave Nicolson**, Manager; **Beily Street**, Senior Laboratory Technician; and **Linda Bostwick**, Records Technician. Desperately needed help for the Instrumental Methods and Physical Chemistry Laboratories was secured several years ago with the hiring of **Federico (Fred) Cruz** (MA99) as Laboratory Coordinator. In like manner, we are about to hire a similar staff member for our burgeoning

organic chemistry laboratories. However, the burden of preparing the general chemistry laboratories has fallen on Dave, Beily, and Linda, even though our total undergraduate enrollment has grown 47% in the past decade (2603 in 2001 → 3824 in 2011), with a concomitant increase in freshman course enrollments.

What of our majors' programs? Although, as I have noted in the article describing this year's Graduation Convocation,

Still, when I carried out a similar survey in 1998, our average Gen Chem lecture size was 85.

the mix of majors (BA/CHEM, BA/XCE, BS/BIOC, BS/CHEM) has varied considerably from year to year, the total has remained remarkably steady, placing us consistently in the upper 1-2% of all CHEM/BIOC baccalaureate programs in the country, in terms of the number of certified graduates produced each year. (The ACS has not yet published national graduation data for 2010-2012, an anomaly that I find quite puzzling, in this era of instantaneous electronic communication.)

| Year | Total Certified UG Degrees | Certified UG Degrees by Major | National Ranking |
|------|----------------------------|-------------------------------|------------------|
| 2012 | 40                         | BS/CHEM (17)+<br>BS/BIOC (23) |                  |
| 2011 | 36                         | BS/CHEM (21)+<br>BS/BIOC (15) |                  |
| 2010 | 40                         | BS/CHEM (22)+<br>BS/BIOC (18) |                  |
| 2009 | 41                         | BS/CHEM (11)+<br>BS/BIOC (30) | (11/653)         |
| 2008 | 42                         | BS/CHEM (17)+<br>BS/BIOC (25) | (11/647)         |
| 2007 | 44                         | BS/CHEM (16)+<br>BS/BIOC (28) | (8/642)          |
| 2006 | 54                         | BS/CHEM (25)+<br>BS/BIOC (29) | (9/640)          |
| 2005 | 39                         | BS/CHEM (18)+<br>BS/BIOC (21) | (10/634)         |
| 2004 | 34                         | BS/CHEM (18)+<br>BS/BIOC (16) | (13/631)         |
| 2003 | 37                         | BS/CHEM (13)+<br>BS/BIOC (24) | (10/630)         |

There are, however, some discontinuities in the majors' pipeline (data as of 5/12):

|                     | Seniors | Juniors | Sophomores | Freshmen | Total |
|---------------------|---------|---------|------------|----------|-------|
| Entered as Freshman | 72      | 120     | 59         | 74       | 325   |
| BS/BIOC:            | 23      | 31      | 16         | 20       | 90    |
| BA/CHEM:            | 12      | 14      | 5          | 6        | 37    |
| BA/XCE:             | 1       | 4       | 2          | 3        | 10    |
| BS/CHEM:            | 17      | 26      | 22         | 30       | 95    |
| Total:              | 53      | 75      | 45         | 59       | 232   |
| % Attrition:        | 26      | 38      | 24         | 20       | 29    |

Note that the largest % attrition has been produced by the largest entering class – a phenomenon that has been replicated by my CHEM-111/112 classes. The senior and freshman entering class sizes are

“normal,” as is the size (72) of the Class of 2016. Note, also, that the % attrition shown is net attrition, reflecting not only the loss of entering freshman, but also a subsequent influx from other majors,

most notably CHEG and BISC. The ethnic and gender demographics of our current classes are also quite different from those of a decade ago (data as of 5/12):

|                   | Seniors | Juniors | Sophomores | Freshmen | Total |
|-------------------|---------|---------|------------|----------|-------|
| Caucasian:        | 37      | 48      | 31         | 38       | 154   |
| African-American: | 3       | 4       | 1          | 3        | 11    |
| Hispanic:         | 4       | 2       | 1          | 1        | 8     |
| Asian:            | 4       | 14      | 8          | 10       | 36    |
| Not Specified:    | 5       | 7       | 4          | 7        | 23    |
| Female:           | 18      | 35      | 17         | 28       | 98    |
| Male:             | 35      | 40      | 28         | 31       | 134   |
| Total:            | 53      | 75      | 45         | 59       | 232   |

While the percentages of our African American and Hispanic majors continue to hover, unfortunately, around 5%, the percentage of our Asian majors (currently 16%) has experienced significant growth. The percentage of our female majors

inverse of the University's enrollment as a whole. Female majors constituted a majority of our majors' population several years ago.

Those of you who have “done the math” are undoubtedly aware that Burnaby and I have long since by-passed our normal retirement ages. Burnaby, although my chronological senior by five years, did not initiate his professorial career until 1967. This confounds many of my industrial friends, most of whom regard retirement as the Holy Grail of their lives. Beyond the obvious, simple reason that we love what we do, I have come to the conclusion that we are experiencing “Groundhog Day (the movie).” Every class is just as young, bright-eyed, and bushy-tailed as its predecessors, yet each presents its own set of challenges, which keeps us young at heart. My 52 years of commuting by bicycle hasn't hurt, either. I'm uncertain as to the long-term effects of Burnaby's Segway riding.

**Burnaby and I have long since by-passed our normal retirement ages**

(currently 42%) has diminished to the point where the male/female ratio is the

In closing, I want to thank our outgoing Chair, **Prof. Klaus Theopold** (the 8<sup>th</sup> different Hertz to my Avis) for his devoted service to our Department during these past five years. Ours has been an unusually harmonious and productive working relationship, aided and abetted by our shared Germanic heritage and the proximity of our offices in the remodeled BRL 102. I look forward to working with my 9<sup>th</sup> Hertz, **Prof. Murray Johnston** who, like me, is a Presbyterian!

All the best,



# From the Director of Graduate Studies:

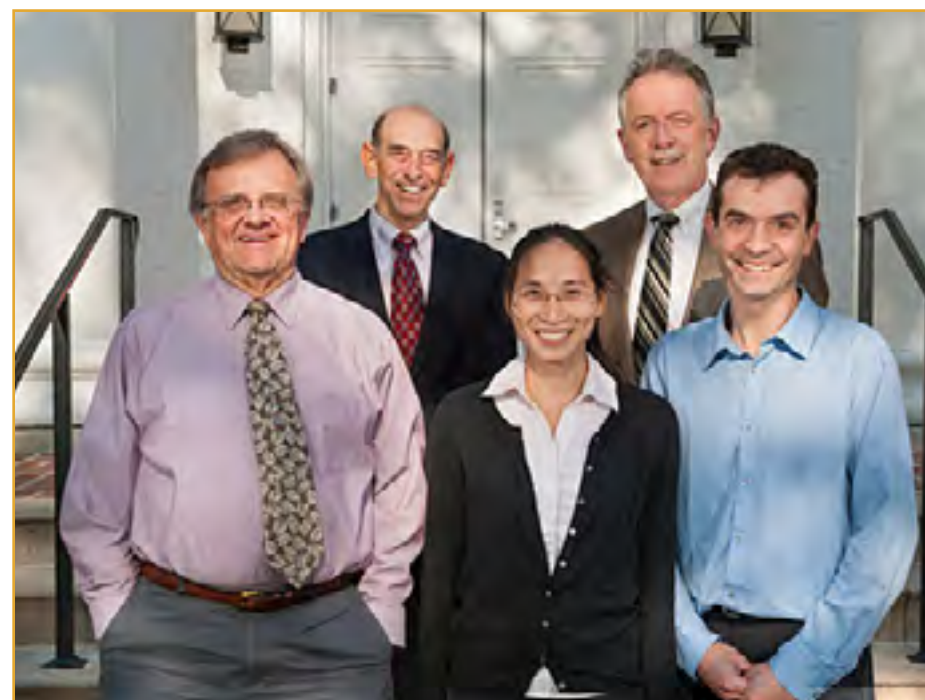
## Awards, Accolades and Honorable Mentions

Greetings! This is my first time writing a column for the **Blue Hen Chemist**, and I am very excited to share some great news regarding the graduate program, which continues to thrive and grow. We awarded 19 Masters and Doctoral degrees in the past academic year, and for the next one, we have a record-setting incoming class of 42 Ph.D. and 7 M.A./M.S. students. The Teaching Assistantship and Fellowship (TAF) Committee had a very difficult task selecting the new crop of graduate students out of more than 350 applicants. I would like to acknowledge the hard work and dedication of the members of the TAF committee—**Prof. Sharon Rozovsky**, **Prof. Sandeep Patel**, **Prof. Karl Booksh**, and **Prof. Neal Zondlo**—without whom this accomplishment would have never been possible. We also had a spectacular graduate recruiting weekend, attended by more than 30 prospective students, which was a true story of success because of the enthusiastic involvement of the current graduate students and the efforts of our graduate students coordinator **Ms. Jen Durkin**. Unfortunately, **Ms. Durkin** will not be participating in these activities in the upcoming year as she decided to embark on a different career path employing her graphic design skills. We wish her luck and continued success in her new position.

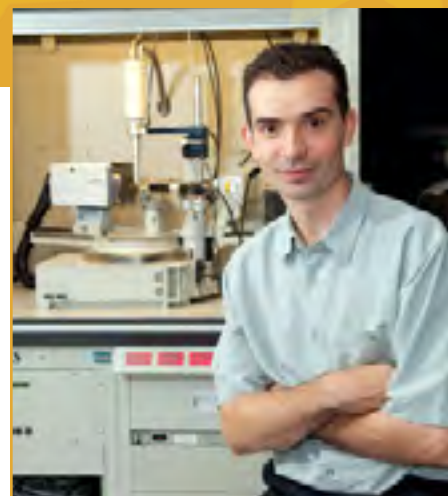
Following the tradition from recent years, we have had a tremendous year in terms of awards and recognitions gathered by our students. To begin with, I would highlight the accomplishments of two of the newest members of the Departmental graduate student body—**Ms. Ornella Sathoud** and **Mr. Habte Ghebremichael**—who were awarded highly competitive University Scholars

Fellowships for their first year of studies. Another high University honor—a University Graduate Fellowship—was bestowed upon **Ms. Danielle McAtee**, which will fund in part her studies in the upcoming academic year. Danielle will be a 4<sup>th</sup> year student in the laboratory of **Prof. Mary Watson**.

At the Departmental level, it is my distinct pleasure to announce the winner of the 46<sup>th</sup> Glenn S. Skinner Award, **Ms. Hua ‘Nancy’ He**—a 4<sup>th</sup> year Ph.D. student working under my supervision. The singular most coveted honor for graduate students in our Department has a cash value of \$2500 and is presented every year to the “best” student in the Department, who is deemed by a committee of faculty from each Division to have contributed the most in all three areas—scholarship, teaching, and service. The award is named in honor of **Prof. Glenn S. Skinner**, an active faculty member in the Chemistry Department from 1928 to 1958. Nancy was surprised with the news at the 2012 Inorganic Colloquium given by **Prof. Richard Eisenberg** (U. Rochester, Editor-in-chief of **Inorganic Chemistry** (ACS)) on April 27. She received her bachelor’s



Skinner/Trofimenko Awards (L to R):  
(back row) Professor Richard Eisenberg (Uof Rochester) and Klaus Theopold  
(front row) John Burmeister, Hua (Nancy) He and Svilen Bobev



Professor of Inorganic Chemistry and Director of Graduate Studies – (b. 1972) B.S./M.S., 1995, University of Sofia; Ph.D., 2002, University of Notre Dame; Postdoctoral, 2002 – 2004, Los Alamos National Laboratory

degree from the University of Science and Technology of China; her graduate work at the University of Delaware has been extremely productive with 10 lead-author publications and numerous accolades.

Nancy also needs to be congratulated for being this year’s recipient of the 5<sup>th</sup> annual Trofimenko Memorial Prize. The award recognizes a current graduate student in

the Department, who has distinguished themselves as the most creative synthetic inorganic chemist. The \$500 Prize was established in 2007 to commemorate **Dr. Swiatoslaw ‘Jerry’ Trofimenko**, a renowned chemist from DuPont, who is also known for the creation of the polypyrazolyl (“scorpionate”) family of ligands. Following



Dyer Excellence in Teaching Awardees: Jia-Ming Lin, Christopher Suiter and Samantha Brannick

his retirement from the industry, Dr. Trofimenko spent the final decade of his productive research career as a visiting scholar in the group of **Prof. Klaus Theopold**.

There were three winners of the 30<sup>th</sup> annual Elizabeth Dyer Excellence-in-Teaching Award this year—**Samantha Brannick**, **Jia-Ming Lin**, and **Christopher Suiter**. The Dyer Award honors the memory of the late **Prof. Elizabeth Dyer**, a member of the chemistry and biochemistry faculty from 1933-1971. The award has been given since 1981, and recognizes graduate students who have been exemplary teaching assistants during the past academic year. A few words about each of the three awardees:

Ms. Brannick received her bachelor’s degree from Muhlenberg College, and is currently pursuing a doctorate in organic chemistry, working in the laboratory of **Prof. Joseph Fox**. She served as a teaching assistant in organic chemistry during fall 2010 and elementary

bioorganic chemistry during spring 2011.

Jia-Ming Lin received his bachelor’s degree from the National Chi Nan University and his master’s degree from National Sun Yat-sen University in his native Taiwan, and is a 3<sup>rd</sup> year doctoral student with **Prof. Andrew Teplyakov**. Mr. Lin served as a teaching assistant in Physical Chemistry Lab I during

pursuing a doctorate, working with **Prof. Tatyana Polenova**. Chris served as a teaching assistant in general chemistry during fall 2010 and general chemistry during spring 2011.

**Michael Taylor**, a graduate student mentored by **Prof. Joseph Fox**, was awarded the 2012 Hackley Award. This is the fourth time that the Department has presented the **Brennie E. Hackley, Jr. Award for Excellence in Research**. The award honors the career of Dr. Hackley, who in 1957 became UD’s first African American doctoral graduate in chemistry. His 57-year career at the U.S. Army Medical Research Institute for Chemical Defense in the Edgewood Laboratories at the Aberdeen (Md.) Proving Ground culminated in his becoming chief scientist there and earning him the federal government’s Exceptional Civilian Service Medal. The award, which consists of a certificate and a check for \$2000, was presented before the University’s annual **Richard F. Heck Lecture** on May 11.

Mike won the Daily Double this academic year by being selected as one of the 10 winners (nationally) of the **Sigma-Aldrich Graduate Student Innovation Award**. He will receive a cash prize of \$1000, an iPad3 and an all-expense paid trip to the Sigma-Aldrich Graduate Student Innovation Award Symposium at the Aldrich campus in Milwaukee, Wisconsin, where he will also give a presentation on his research.



Hackley Award (L to R): Professor John Burmeister, Professor Klaus Theopold, Mr. Michael Taylor and Professor Joseph Fox

The 39<sup>th</sup> annual **Joel L. Silver Award Symposium** took place on May 16, 2012. The namesake of the Silver Award, the late Joel L. Silver, was a doctoral student in the laboratory of **Prof. John Burmeister**, who was tragically killed in a car accident in 1971, just a few months before earning his Ph.D. A fixture in the Department of Chemistry and Biochemistry since 1973, the Award Symposium commemorates **Dr. Silver**, and honors the hard work of all involved in graduate education in Chemistry and Biochemistry.

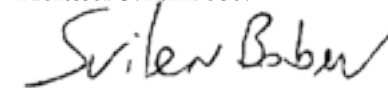
Nine students participated by giving 15 min research talks, followed by a 5 min session with questions and answers, both evaluated by an external jury composed of academic and industry representatives of each major research area. **Dr. Derrick Swinton** (PhD01), Lincoln University (analytical); **Dr. Ya-Ming**

**Hou**, Jefferson University (biochemistry); **Dr. Joseph M. Keane**, Muhlenberg College (inorganic); **Dr. Andrew Combs**, Incyte Biopharmaceutical Company (organic); and **Dr. Robert Opila**, Materials Science and Engineering, UD (physical) judged the participants on the basis of research quality and presentation.

We extend our sincere appreciation to the jurors, which had a very difficult task of selecting the winners—**Benjamin Israel (Prof. Thorpe)** won the 1<sup>st</sup> place award for his presentation titled “Dissecting Catalysis: Probing the Redox Balance of the Quiescin Sulphydryl Oxidase from *Trypanosoma Brucei*”; **Jingmei Shen (Prof. Theopold)** won the 2<sup>nd</sup> place award for her presentation titled “Low Valent Chromium  $\alpha$ -Diimine Complexes as Catalysts and Mechanistic Models for Ethylene Trimerization”; and

**Aparna Sapra (Prof. Thorpe)** won the 3<sup>rd</sup> place award for her presentation titled “New Work on Old Poisons”. The other six presenters, who also gave very interesting and informative talks were: **Stephanie Schaefer (Prof. Thorpe and Prof. Rozovsky)**, **Anil Pandey (Prof. Zondlo)**, **Ming Dong (Prof. Bahnson)**, **Tatsiana Haidzinskaya (Prof. M. Watson)**, **Hua He (Prof. Bobev)**, and **Billy Bozza (Prof. Zhuang)**. I would like to acknowledge **Prof. Brian Bahnson**, who graciously agreed to chair the event in my absence.

**Professor Svilen Bobev**



## FROM THE CHAIR-ELECT:



*Professor of Analytical Chemistry and Chair Elect - (b. 1954) B.S., 1976, Bucknell University; Ph.D., 1980, University of Wisconsin*

As students return to campus this fall and a new academic year begins, our Department Chair **Klaus Theopold** will turn over the reins of the Department to me. It has been said that the one constant

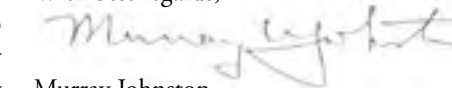
in a university is change. While the average age of the student body always remains the same, undergraduate and graduate student populations completely turn over on a 4-5 year cycle. Similarly, leadership of the Department turns over every 5 years, which gives our faculty the opportunity to reflect on where we've come from over the tenure of our outgoing Chair and where we need to go in the future.

With Klaus at the helm, our Department has moved forward in many ways. As you will read elsewhere in the Blue Hen Chemist, enrollment in our undergraduate courses is burgeoning, the incoming graduate class is the largest ever, and our students at all levels continue to distinguish themselves in the broader scientific community. A cadre of new faculty hired under Klaus' leadership has greatly expanded our research program, especially by moving us into emerging multidisciplinary areas. Chemistry and Biochemistry at the University

of Delaware is vibrant and I want to thank Klaus for his efforts over the past 5 years.

As we look to the future, there are many daunting challenges facing our Department. Budgets are stretched thin, competition for research funding is intense, and substantial upgrades to the Departmental infrastructure are needed simply to maintain, let alone enhance, our teaching and research missions. In the future, you will hear more of these challenges and our action to overcome them. In the meantime, I want to stress the importance that support from our alumni and friends plays in meeting these challenges. Chemistry and Biochemistry is your Department, your academic home. Please consider our doors open to you anytime, whether you visit in person or electronically.

With best regards,



Murray Johnston

*Silver Awardees (L to R): (1st row) Jingmei Shen, Benjamin Israel and Aparna Sapra; (2nd row) Silver Symposium Judges: Andrew Combs [Incyte Biopharmaceutical Company], Joseph Keane (Muhlenberg College), Bob Opila (Materials Science, UD), Ya-Ming Hou (Jefferson University) and Derrick Swinton (Lincoln University).*



## CAROLYN COCHRANE KENT (MS66) RECEIVES COLLEGE OF ARTS AND SCIENCES ALUMNI ACHIEVEMENT AWARD

Carolyn, who, along with **Roy C. Timmer** (MS66), was one of Your Editor's first two M.S. students, was recognized at the College's annual year-end ceremony on 5/16/12 for her excellence, dedication and support, along with three other outstanding A&S alumni.

Carolyn graduated with a Bachelor of Science degree in chemistry from Bucknell University. Following the completion of her M.S. studies at the University of Delaware, she was hired by Armstrong World Industries, in Lancaster, PA, as their first female research chemist. She spent the next 30 years working for AWI in a variety of capacities, including research, government regulations, and human resources, eventually rising to the level of operations general manager. Upon retirement, she has been involved in consulting, property management, and property renovation.

As a Lancaster, PA resident, Carolyn has been active in many organizations, including the Pilot Club of Lancaster, Meals on Wheels, Lancaster Conservancy and the Boy Scouts of America, for whom

she served as vice-president for exploring. She and her husband, John Hale, were named Conservationists of the Year by the Lancaster County Conservancy for establishing a nature preserve.

Carolyn and John have created the Carolyn C. Kent and John R. Hale Fellowship at the University of Delaware to provide graduate students in the Department of Chemistry and Biochemistry with the financial

assistance they need to ensure success. Carolyn and John are members of the University's Delaware Diamonds Society and the Carillon Circle.

Carolyn and John love most sports and actively support the Phillies, Orioles, Ravens (with Joe Flacco, of course) and the University of Delaware's football team and its exceptional women's basketball team.



*College of Arts and Sciences Alumni Achievement Award*

*Front row, l to r: Gena Timmer, Carolyn Cochrane Kent, Linda Shugarts (childhood friend of Carolyn's) Back row, l to r: Roy Timmer, John Hale, John Burmeister, Roland Shugarts*



# Additional Faculty/Staff Activities and Awards

## Fifty-Year ACS Members

One previous and one current UD CHEM/BIOC faculty member reached this significant milestone this past year: **David L. Dalrymple, Ph.D.** (FAC 68-74) and **Michael Stemmiski, Ph.D.** (PT FAC).

## ACS Fellows

Two previous UD CHEM/BIOC faculty members were accorded this signal honor in 2011: **P. Andrew Evans, Ph.D.** (FAC 93-00), Professor of Chemistry, University of Liverpool; and **Arnold L. Rheingold, Ph.D.** (FAC 84-03), Professor of Chemistry, University of California, San Diego.

**Prof. Svilen Bobev**, Director of Graduate Studies, and his wife, Asya, welcomed the addition of the newest potential solid state chemist to their family on 5/10/12. Their second son, Victor, weighed in at a robust 8 lbs., 4 ozs.

The faculty and staff of the CHEM/BIOC Department joined **Prof. Junghuei Chen** in mourning the death of his wife, Suching, on 9/29/11.

**Prof. Karl Booksh** has been appointed to two key national committees: Chair of the ACS Chemists with Disabilities Committee and as a member of the NSF's Committee on Equal Opportunities in Science and Engineering. He is featured in a video produced by the ACS ("Chemists with Disabilities: We All Can") that was selected as one of three winning entries in a competition sponsored by the Campaign for Disability Employment, [**C&E News**, 7/2/12, p.75]

**Frank J. Creegan, Ph.D.** (Post-doc, Moore), W. Alton Jones Professor of Chemistry, Emeritus at Washington College, Chestertown, MD, was honored by the College for his 40 years of service by the establishment of the Frank J. Creegan Chair in Green Chemistry. As yet another example of the tight-knit, circular nature of the field of chemistry. Frank was a housemate of **Dr. Michael Stemmiski** (PT FAC) when both were graduate students at Fordham University in the 60's.

**Allen J. Denio, Ph.D.** (FAC 78-79, 98-99) accepted the ACS Government Affairs Award on behalf of the Delaware Section

at the Denver ACS Meeting last August.

**Prof. Cecil Dybowski** served as the President of the Eastern Analytical Symposium in 2012 – the first spouse to be so honored. His wife, (the late) **Dr. Mary Kaiser** also served in this position.

**Dennis H. Evans, Ph.D.** (FAC 86-04), adjunct research professor at Purdue University, is the 2011 recipient of the ACS Division of Analytical Chemistry's Award in Electrochemistry. His wife, **Mary J. Wirth, Ph.D.** (FAC 86-04) is Purdue's W. Brooks Fortune Distinguished Professor of Analytical Chemistry.

**Jean H. Futrell, Ph.D.** (FAC 86-99, CHAIR 86-95, 96-97), Batelle Fellow at the Pacific Northwest National Laboratory, has been designated by the Board of Directors of the American Society for Mass Spectrometry as a pioneer in his field. As part of the honor, his mass spectrometry story will be included as part of the Chemical Heritage Foundation's Oral History Program.

**Susan James**, who has been a staff member (currently Administrative Assistant) in the CHEM/BIOC Department for 37 years, was named Human Resources Liaison of the Quarter for the third quarter of 2011. Sue is married to **Kenneth J. James** (BS84, Ph.D.98), President and Director of Technology of Supercritical Fluid Technologies, Inc.

**Julia Laskin, Ph.D.** (Post-doc, Futrell), staff scientist at the Pacific Northwest National Laboratory, has been honored by the Women's Chemists Committee of the ACS with one of its ten inaugural Rising Star Awards. The Award was presented to Julia at the San Diego ACS Meeting this past March. [see **C&E News**, 4/16/12, p.47]

It can safely be concluded that **Prof. George Luther** (JOINT FAC), Maxwell P. and Mildred H. Harrington Professor of Marine Studies, is a "hale fellow, well

met!" This past year, George was named a Fellow of the American Association for the Advancement of Science as well as a 2012 American Geophysical Union Fellow for his pioneering research in redox reactions, trace element speciation and development of novel **in situ** electrochemical methods.

**Dr. Albert Matlack** (ADJUNCT FAC) is certainly not "high on Coke," as his letter published in **C&E News** (3/26/12, p.4) readily attests! He is, however, high on solar power, having organized a field trip last August to Dover's Solar Park, a \$50 million, 10-megawatt installation – the first such installation in Delaware.

The death of 1995 Chemistry Nobel Laureate Frank Sherwood (Sherry) Rowland (he of ozone depletion fame) on 3/10/12 stirred some very personal responses in our Department. **Prof. Wallace H. McCurdy** (FAC 59-92) was a colleague of Sherry's, when both were on the Princeton University faculty (52-56). **Prof. Conrad N. Trumbore** (FAC 60-97) was a good friend of Sherry's, both professionally and personally. Sherry was instrumental in recruiting Conrad's daughter, Susan Trumbore, Ph.D. (UD/BS/GEOL/81), to teach and do research at the newly established Earth System Science Department at UC-Irvine, where she ultimately became Chair of the Department. She is now a Director of the Max-Planck Institute for Biogeochemistry in Jena, Germany, and was recently inducted into the U.S. National Academy of Sciences.

**Prof. John Newberg**, the newest member of our CHEM/BIOC faculty, and his wife were blessed with the birth of their third child (third son), John, Jr. (JJ) on 5/27/12. JJ was no tiny tot, weighing in at 8 lbs., 12 ozs.

**Arnold L. Rheingold, Ph.D.** (FAC 84-03), Professor of Chemistry at the University of California-San Diego, is the highly deserving recipient of the 2012

ACS Award for Distinguished Service in the Advancement of Inorganic Chemistry, sponsored by Strem Chemicals. Arnie's collaborative x-ray diffraction studies with 4,200 different co-authors has produced a mind-boggling 2,100 papers, involving more than 9,000 crystal structures. Included in his list of co-authors are Nobel Laureates Roald Hoffmann, Richard R. Schrock, and our own **Richard F. Heck** (FAC 71-89). [see **C&E News**, 1/16/12, pp. 43-44]

**Prof. Kate Scantlebury**, Director of Secondary Education Programs in the College of Arts and Sciences, has also been named a Fellow of the American Association for the Advancement of

Science. Kate, who recently completed her sixth stint as a guest researcher at the Center for Gender Research at Uppsala University, in Sweden, has been selected to receive a 2011 Distinguished Education Alumni Award from Purdue University's College of Education.

**Prof. Donald L. Sparks** (JOINT FAC), S. Hallock DuPont Chair in Soil and Environmental Chemistry, was recently elected an honorary member of the International Union of Soil Sciences. He was one of only six soil scientists so honored, and is only the 15<sup>th</sup> American so recognized since the IUSS was founded in 1924.

**Prof. Douglass F. Taber** has authored "Organic Synthesis: State of the Art" (2007-2009), published by Oxford University Press.

**Prof. Andrew V. Teplyakov** is the recipient of the 2012 ACS Delaware Section Award.

**Prof. Donald P. Watson's** discovery of the Silyl-Heck Reaction was highlighted in **C&E News** (4/2/12, p.9). The work was carried out by graduate students **Jesse R. McAtee** and **Sara E.S. Martin**, with the assistance of undergraduate researchers **Derek Ahneman** (BS/CHEM/12) and **Keywan Johnson** (BS/CHEM/13).

*continued on page 16*

*Sue James, 3rd Quarter HR Liaison*



Photo by Kathy F. Atkinson

# 17<sup>TH</sup> CHEM/BIOC GRADUATION CONVOCATION, MAY 26, 2012

Photos provided by: GradImages



Dr. Carol Renfrew Haft (BS84).

Although the total attendance was somewhat smaller than usual, the spirit exhibited during the 17<sup>th</sup> CHEM/BIOC Graduation Convocation in Pearson

Hall on 5/26/12 was just as high as ever. Continuing what has become a long-standing tradition, our speaker was a distinguished alumnus – **Dr. Carol Renfrew Haft** (BS84). Carol is a Senior Advisor for Cell Biology and an Associate Director for Grants Administration in the National Institute of Health's National Institute of Diabetes, Digestive and Kidney Diseases in Bethesda, MD. We have always felt that advice and inspiration is more meaningful when it comes from someone who once walked in the graduates' moccasins, and Carol did not disappoint. She was able to relate the various directions that her career's path has taken her to her foundational experiences at the U of D., where she worked in the laboratory of **Prof. Colin Thorpe**, before doing her graduate work at Johns Hopkins University.

As the Friday evening Hooding Ceremony for doctorates has grown in significance and interest, their attendance at both Commencement and Convocation on Saturday has declined. Only 4 of the 13 Ph.D. graduates were "re-hooded" during this year's Convocation. The drop in participation by the graduating seniors (only 41/53 attended) was unexpected. Nonetheless, with a total attendance of ca. 250, the subsequent reception in the Brown Laboratory lobby was as exuberant and joyful as its predecessors.

The placement pattern of our recent baccalaureate classes is patternless, for the most part, as is demonstrated by the following comparison:



|                 | 2012 | 2011 | 2010 | 2009 |
|-----------------|------|------|------|------|
| Graduate School | 10   | 12   | 7    | 20   |
| Medical School  | 1    | 7    | 3    | 4    |
| Dental School   | -    | 2    | 2    | 2    |
| Pharmacy School | -    | 1    | 1    | 4    |
| Law School      | 1    | 1    | 2    | 2    |
| Nursing School  | 1    | -    | -    | 2    |
| Industry        | 7    | 3    | 8    | 2    |
| Government      | 1    | 1    | 1    | 2    |
| Teaching        | 1    | 1    | 1    | 4    |
| Other           | 2    | 1    | 3    | 3    |
| Undetermined    | 29   | 26   | 22   | 9    |

The only real "trend" to be found therein is the steady growth shown in the Undetermined category, reflecting the current sad state of our nation's economy (also see **C&E News**, 11/7/2011, pp. 32-48. Note that the unemployment rate among ACS members has risen to 4.6% since the publication, last November, of the annual Employment Outlook by **C&E News**).

While not as dramatic, the mix of degrees awarded in recent years has also shown considerable variability, while the total number of degrees has changed very little:

|         | 2012 | 2011 | 2010 | 2009 |
|---------|------|------|------|------|
| BA/CHEM | 12   | 18   | 11   | 11   |
| BA/XCE  | 1    | 1    | -    | -    |
| BS/CHEM | 17   | 21   | 18   | 13   |
| BS/BIOC | 23   | 15   | 21   | 30   |
| Total   | 53   | 55   | 50   | 54   |



WELLDONE, CLASS OF 2012!

We will meet again for our 18th Graduation Convocation on May 25, 2013.

### Additional Faculty/Staff Activities and Awards *Continued from page 13*

The recurring criticism that college graduates cannot write properly cannot be directed at **Prof. Harold White**. Hal's emphasis on writing in the various

1990 **Kimberly Stinson** [CHEM-342] – First Place

1990 **Carla R. Scanzello, M.D., Ph.D** [CHEM-465](BS90) – Honorable Mention

1991 **Keith Robinson** [CHEM-647] (BS/BISC/91) – Honorable Mention

1993 **Sonia Kerby** [UNIV-495] (BA/FLLT/94) – Honorable Mention

1995 **Michael Skinner** [CHEM-342] (BALS/96)- Honorable Mention

1996 **Laura Jane Swanson** [CHEM-342] (BS/97) – Honorable Mention

courses that he has taught (CHEM-342 Introduction to Biochemistry, CHEM-465 Senior Seminar, CHEM-643 Intermediary Metabolism, CHEM-647 Biochemical

2003 **Todd M. Greco** [CHEM-647] (BS03) – Honorable Mention

2005 **Amanda Peters** [CHEM-643] (BS/05) – Honorable Mention

2007 **Gretchen A. Ritter** [CHEM-342] (BS08) – Honorable Mention

2007 **Richard J. Karpowicz, Jr.** [CHEM-643] (BS07) – Honorable Mention

2011 **Nicholas Marze** [CHEM-643] (BS/CHEG/11) – Second Place

2012 **Helen F. Schmidt** [CHEM-342] (BS13) – First Place

Hal's "other life" as Delaware's preeminent authority on dragonflies and damselflies has

Basis of Evolution, UNIV-495 Honors Seminar) has produced a remarkable total of **twelve** Edward H. Rosenberry Undergraduate Writing Awardees:

spawned his new book **Natural History of Delmarva Dragonflies and Damselflies: Essay of a Lifelong Observer**, published this year by the University of Delaware Press, in collaboration with the Delaware Nature Society.

### VISITING FACULTY, 2011 – 2012

**Dr. Karen L. Hooper** (PhD99), CHEM-106 Elementary Bioorganic Chemistry, CHEM-214/216 Elementary Biochemistry

**Dr. Albert Matlack** (Hercules Research Center-retired), CHEM-667 Industrial Chemistry, CHEM-681 Green Chemistry

**Dr. Geoffrey Sametz**, CHEM-321/322 Organic Chemistry

**Dr. Paul Silver** (PhD73), CHEM-101 General Chemistry

**Dr. Michael Stemmiski** (McKean High School-retired), CHEM-102 General Chemistry, CHEM-103/104 General Chemistry, CHEM-213/215 Elementary Organic Chemistry

### VISITING SCHOLARS, 2011-2012

**Rasha Ahmed Mahmoud Hassan** (Cairo University, Egypt) [Taber]

**Himangshu Mishra** [Theopold]

**John Young** (Gelest, Inc.) [Theopold]

### POSTDOCTORAL RESEARCHERS AND FELLOWS, 2011-12:

**Walakada Gamage Piyal Ariyananda** (University of Delaware) [Rosenthal]

**Vidyadhar Daithankar** (University of Delaware) [Rozovsky]

**Ampofo Darko** (University of Florida) [Fox]

**Lushanti De Zoysa Ariyananda** (University of Delaware) [Grimes]

**Jiasheng Diao** (Chinese Academy of Sciences, China) [Zhuang]

**Sheng-ping Guo** (Chinese Academy of Sciences, China) [Bobev]

**Guangjin Hou** (Wuhan Institute of Physics & Mathematics, China) [Polenova]

**Snehadrinarayan Khatua** (Indian Institute of Technology, India) [Rosenthal]

**Yu Liu** (University of Maryland, College Park) [Fox/Grimes]

**Prantik Maity** (University of Regensburg, Germany) [M. Watson]

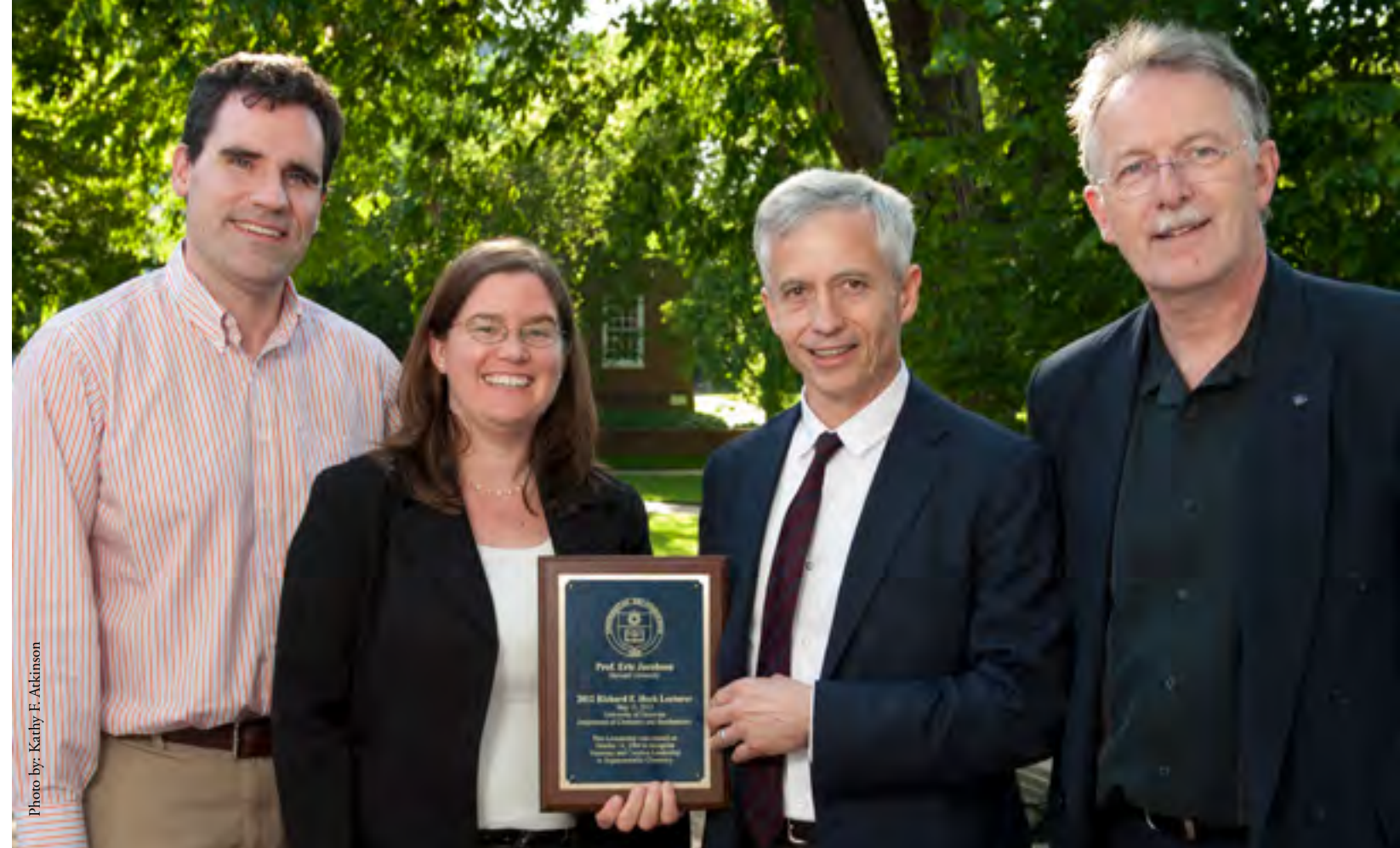
**Mark Mero** (University of New Mexico) [Gundlach]

**Sivakumar Paramasivam** (University of Delaware) [Polenova]

**Marion Schäfer** (Universität Stuttgart, Germany) [Bobev]

**Qun Xu** (Northeastern University) [D. Watson]

**Jiliang Zhang** (City University of Hong Kong, China) [Bobev]



9th Heck Lectureship awardee, Eric Jacobson, Harvard University

From L to R; Joseph Fox, Mary Watson, Eric Jacobson and Klaus Theopold

### 2011-2012 NAMED LECTURES, COLLOQUIA, AND SYMPOSIA

The sixth annual **John C. Wriston, Jr.** (FAC55-85) Memorial Lecture was presented on 4/30/12 by **Anthony Kossiakoff** (PhD72), the Otho S.A. Sprague Professor of Biochemistry and Molecular Biology at the University of Chicago's Knapp Center for Biomedical Discovery. Tony, whose doctoral mentor was **Prof. Robert H. Wood** (FAC57-02), discussed "Modifying Biological Function Inside Cells Using

Conformational Trapping by Synthetic Antibodies."

The ninth annual **Richard F. Heck** (FAC71-89) Lecture was presented on 5/11/12 by Prof. Eric N. Jacobsen, the Sheldon Emery Professor of Chemistry and Chemical Biology at Harvard University. Prof. Jacobsen, who received a plaque honoring Prof. Heck's 2010 Nobel Prize in Chemistry, described

"Attractive, Non-covalent Interactions in Asymmetric Catalysis." The generous support of the Heck Lectureship by Amgen, Inc. is gratefully acknowledged, as is the facilitation of same by **Karl B. Hansen, Ph.D.** (BS93), Amgen's Scientific Director for Chemical Process R&D.

The remaining colloquium speakers, their affiliations, and their topics were as follows:

| Date    | Speaker/Affiliation                                  | Topic   |
|---------|--|---|
| 9/7/11  | <b>Prof. Sandeep Patel</b><br>University of Delaware | "Studies of Soft Condensed Matter Systems Using Molecular Simulations"  |
| 2/29/12 | Prof. Victor S. Batista<br>Yale University           | "Studies of Natural and Artificial Photosynthesis"  |
| 3/9/12  | <b>Prof. John Koh</b><br>University of Delaware      | "Chemical Biology of Nuclear Receptors: Building a Better Antiandrogen and the Making of a Synthetic Acyltransferase" |
| 3/19/12 | Dr. Carmen Drahl<br><b>C&amp;E News</b>              | "The Challenge of Scientific Writing"   |
| 4/27/12 | Prof Richard Eisenberg<br>University of Rochester    | "A Molecular Approach to Artificial Photosynthesis and the Light Driven Generation of Hydrogen from Water"            |

The 33<sup>rd</sup> East Coast Ion Chemistry Conference was held on Saturday, October 29, 2011. Talks were presented by speakers from the University of Delaware, University of Sciences, Rutgers University, Chestnut Hill College, and DuPont. Topics included gas phase reactions of sulfuric acid clusters, aerosol mass spectrometry, Solvent Assisted Inlet Ionization Mass Spectrometry, ionic chemistry of carbenes, selective chemical ionization, and polymer characterization. The 34<sup>th</sup> ECICC will be held on Saturday, October 27, 2013.

## 2011-2012 UNDERGRADUATE AWARDS

| NATIONAL AWARDS   | Recipients  |
|---|---|
| ACS/Hach Scientific Foundation Scholarship Awards   | <b>Megan E. Millman</b> (BA/XCE/13)<br><b>Kammas R. Murphy</b> (BA/XCE/12)  |
| ASBMB Undergraduate Poster Competition, 2012 Experimental Biology Conference, San Diego, CA | <b>Michael A. Brister</b> (BS/BIOC/12) 1 <sup>st</sup> place<br><b>Soma Jobbagy</b> (BS/BIOC/12) Honorable Mention<br><b>Christopher D. Wright</b> (BS/BIOC/12) Honorable Mention<br><b>Timothy E. Gilpatrick</b> (BS/BIOC/12) Travel Award |
| ACS Division of Organic Chemistry-Summer Research Fellowship                                | <b>Hilary A. Kerchner</b> (BS/CHEM/13)  |

| REGIONAL AWARDS  | Recipients   |
|--|--|
| 76 <sup>th</sup> Intercollegiate Student Chemists Convention, Bloomsburg (PA) University, April 14, 2012                                 | <b>Justin Teesdale</b> (BS/CHEM/13) 1 <sup>st</sup> place, Inorganic Division<br><b>Gregory M. Darone</b> (BA/XCE/13) 2 <sup>nd</sup> place, Inorganic Division  |
| University of Maryland-Baltimore County 14 <sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences | <b>Michael A. Brister</b> (BS/BIOC/12), 1 <sup>st</sup> place, Biochemistry Group 3a<br><b>Michael J. Ghidui</b> (BS/CHEM/12) 1 <sup>st</sup> place, Chemistry Group 7a<br><b>Justin Teesdale</b> (BS/CHEM/13) 1 <sup>st</sup> place, Chemistry Group 3a<br><b>Elizabeth A. Glinka</b> (BS/CHEM/12) 2 <sup>nd</sup> place, Biochemistry Group 1a<br><b>Kara L. Martin</b> (BS/CHEM/13) 2 <sup>nd</sup> place, Chemistry Group 1b |
|  |  |
| UNIVERSITY AWARDS  | Recipients   |
| Blue Hen Team Sportsmanship Awards   | <b>Amanda B. Halstrom</b> (BS/CHEM/13) Women's Tennis<br><b>Laura L. Wertman</b> (BS/BIOC/12) Rowing   |
| Edward H. Rosenberry Undergraduate Writing Award   | <b>Helen F. Schmidt</b> (BS/BIOC/13) 1 <sup>st</sup> prize   |
| 2 <sup>nd</sup> Annual Undergraduate Research and Service Celebratory Symposium  | <b>Gregory M. Darone</b> (BA/XCE/13) 2 <sup>nd</sup> place, Interdisciplinary Undergraduate Research in Sustainability Prize   |

| SUMMER RESEARCH AWARDS        |                      |                           |                                 |
|-------------------------------|----------------------|---------------------------|---------------------------------|
| Recipient                     |                      | Source of Support         | Mentor                          |
| <b>Assem O. Abd El Khalik</b> | (BS/CHEM/14)         | IMBRE                     | Prof Donald Watson              |
| <b>Gregory M. Darone</b>      | (BA/XCE/13)          | State of Delaware         | Prof Svilen Bobev               |
| <b>Andrew S. Dover</b>        | (BS/CHEM, BA/XCE/14) | David Plastino Fellowship | Prof Joseph Fox                 |
| <b>Michael S. Estephan</b>    | (BS/CHEM/13)         | David Plastino Fellowship | Prof Catherine Grimes           |
| <b>Amanda B. Halstrom</b>     | (BS/CHEM/13)         | ISE Lab Development       | Prof. Meredith Wesolowski       |
| <b>Zachary M. March</b>       | (BS/CHEM/14)         | HHMI                      | Prof David Colbey (CHEG)        |
| <b>Kara L. Martin</b>         | (BS/CHEM/13)         | HHMI                      | Prof Neal Zondlo                |
| <b>Jennifer P. McCord</b>     | (BS/CHEM/14)         | David Plastino Fellowship | Prof. Neal Zondlo               |
| <b>Melissa G. Morris</b>      | (BS/CHEM/13)         | State of Delaware         | Prof Mary Watson                |
| <b>Monica G. Pirigy</b>       | (BS/BIOC/13)         | HHMI                      | Prof Neal Zondlo                |
| <b>Helen E. Schmidt</b>       | (BS/BIOC/13)         | HHMI/EPSCoR               | Prof Eric Wommack (DBI)         |
| <b>Kathleen M. Seip</b>       | (BS/BIOC/14)         | HHMI/IMBRE                | Prof Michelle Parent (Med Tech) |
| <b>Tyler Slouf</b>            | (BS/CHEG/14)         | David Plastino Fellowship | Prof Svilen Bobev               |
| <b>Carissa M. Smoot</b>       | (BS/CHEM/13)         | David Plastino Fellowship | Prof Joel Rosenthal             |
| <b>Nijing Su</b>              | (BS/CHEM/13)         | David Plastino Fellowship | Prof Donald Watson              |
| <b>Justin Teesdale</b>        | (BS/CHEM/13)         | CHEM/BIOC Dept.           | Prof Joel Rosenthal             |

| SUMMER RESEARCH AWARDS (continued) |              |                   |                            |
|------------------------------------|--------------|-------------------|----------------------------|
| Recipient                          |              | Source of Support | Mentor                     |
| <b>Matthew J. Urban</b>            | (BS/BIOC/14) | HHMI              | Prof Zhihao Zhuang         |
| <b>Matthew C. White</b>            | (BS/BIOC/13) | HHMI              | Prof Charlie Riordan       |
| <b>Jocelyn Zajac</b>               | (BS/BIOC/13) | HHMI              | Prof Melinda Duncan (BISC) |

| DEPARTMENT AWARDS  | Recipients   |
|--|--|
| American Chemical Society Award in Chemistry                         | <b>James T. McParland</b> (BS/BIOC/13)   |
| American Chemical Society Undergraduate Award in Inorganic Chemistry | <b>Michael J. Ghidui</b> (BS/CHEM/12)  |
| American Institute of Chemists Award in Chemistry                    | <b>Michael A. Brister</b> (BS/BIOC/12)   |
| Kevin Scott Beall Memorial Awards                                    | <b>Lukas Campolo</b> (BS/BIOC/15)<br><b>Ethan G. Clark</b> (BS/BIOC/15)  |
| Wallace H. Carothers Scholarships                                    | <b>Alyssa M. Hull</b> (BS/CHEM/14)<br><b>Matthew J. Urban</b> (BS/BIOC/14)   |
| Frank W. Collins Undergraduate Awards in Biochemistry                | <b>Timothy E. Gilpatrick</b> (BS/BIOC/12)<br><b>Soma Jobbagy</b> (BS/BIOC/12)  |
| Quaesita Drake Scholarships  | <b>Hilary A. Kerchner</b> (BS/CHEM/13)<br><b>Sintia Krizman</b> (BS/BIOC/13)<br><b>Monica G. Pirigy</b> (BS/BIOC/13)<br><b>Helen F. Schmidt</b> (BS/BIOC/13) |
| Elizabeth Dyer Awards for Excellence in Chemistry and Biochemistry   | <b>Derek T. Ahneman</b> (BS/CHEM/12)<br><b>Timothy E. Gilpatrick</b> (BS/BIOC/12)  |
| Hypercube Scholar Award  | <b>David M. Raciti</b> (BS/BIOC/12)  |
| Wallace H. McCurdy Jr. Undergraduate Award in Analytical Chemistry   | <b>Alexander G. M. Chau</b> (BA/CHEM/12)   |
| Merck Index Awards   | <b>William J. Cressman</b> (BS/BIOC/12)<br><b>Soma Jobbagy</b> (BS/BIOC/12)  |
| James A. Moore Undergraduate Award in Organic Chemistry              | <b>Michael A. Brister</b> (BS/BIOC/12)   |
| Gene J. and Frances E. Schiavelli Undergraduate Research Fellowship  | <b>Michael J. Ghidui</b> (BS/CHEM/12)  |
| C. Frank Shaw III Undergraduate Award in Inorganic Chemistry         | <b>Michael J. Ghidui</b> (BS/CHEM/12)  |
| C. Frank Shaw III Undergraduate Inorganic Research Fellowship        | <b>Justin Teesdale</b> (BS/CHEM/13)  |
| Carl A. von Frankenberg Undergraduate Awards in Chemistry Education  | <b>Nicholas J. Audette</b> (BS/BIOC/12)<br><b>Kammas R. Murphy</b> (BA/XCE/12)   |

## ASBMB UAN CHAPTER OFFICERS FOR 2012-2013

President: **Matthew White** (BS/BIOC/13)

Treasurer: **Hamza Bhatti** (BA/BISC/13)

Vice-President (12F): **James McParland** (BS/BIOC/13)

Public Relations: **Andrea LaBella** (BS/BIOC/13)

Vice-President (13S): **Ramkrishna Patel** (BA/BISC/13)

Webmaster: **Allison McCague** (BS/BISC/13)

Secretary: **Alex Squitti** (BS/BIOC/14)

Adviser: **Prof Harold White**

Heartiest CONGRATULATIONS to the University of Delaware Chapter for being honored with the 2012 ASBMB Undergraduate Affiliate Network Outstanding Regional Chapter Award for the northeast region. The award plaque was presented to the Chapter during the ASBMB Annual Meeting in San Diego.

## ACS SA CHAPTER OFFICERS FOR 2012-2013

President: **Hilary Kerchner** (BS/CHEM/13)

Public Relations: **Lukas Campolo** (BS/CHEM/15)

Vice-President: **Douglas Kenny** (BS/CHEM/14)

Webmaster: **Alyssa Hull** (BS/CHEM/14)

Secretary: **Sintia Krizman** (BS/BIOC/13)

Adviser: **Prof. Burnaby Munson**

Treasurer: **Lauren Genova** (BS/CHEM//BA/XCE/15)



USA Science & Engineering Festival, Washington, DC, 4/27-29/12: From right, CHEM-104 Honors students Hannab Anderson, Leena Doolabb, and Lindsay Shapiro, with Prof. Meredith Wesolowski, teach visitors about enantiomers

## 2012 B.S. BIOCHEMISTRY GRADUATES

**Nicholas J. Audette<sup>a</sup>**

**Ryan F. Birney**

**Christopher J. Black**

**Ashley F. Bloxom**

**Michael A. Brister<sup>b</sup>**

**Anna M. Bruno<sup>a</sup>**

**William J. Cressman**

**Lara M. Dubuc**

<sup>a</sup> Honors Degree

**Timothy E. Gilpatrick<sup>b</sup>**

**Cory A. Heffner**

**Katrinka M. Housley**

**Alexa J. Hunter<sup>a</sup>**

**Soma Jobbagy<sup>b</sup>**

**Timothy J. Koblish**

**Danielle L. Kollmorgen**

**Jeffrey E. Lopez**

<sup>b</sup>Honors Degree with Distinction

**Stephen P. Lynn<sup>a</sup>**

**Kana H. Panchmatia**

**David M. Raciti<sup>c</sup>**

**Matthew T. Ralston**

**Wrenn T. Sherwood<sup>a</sup>**

**Laura L. Wertman<sup>c</sup>**

**Christopher D. Wright<sup>b</sup>**

<sup>c</sup>Degree with Distinction

## 2012 B.A. CHEMISTRY GRADUATES:

**Mohammad A. Alfehaid**

**Michele L. Buoncore**

**Alexander G. M. Chau<sup>a</sup>**

**Paul S. Kochansky, Jr.**

**Matthew J. Lawless**

**Steven A. Lotter**

**Justin H. McDonald**

**Stephanie M. Meissgeier**

**Kammas R. Murphy (XCE)**

**Ayomide A. Osunkoya**

**Michael A. Shoiok**

**Richard L. Surmaitis**

**Mark M. Weiss**

<sup>a</sup> Honors Degree

# Sixth Class of Alumni Undergraduate Research Fellows

The CHEM/BIOC Department hosted a dinner at the Courtyard Marriott on May 7<sup>th</sup> to announce the sixth class of Alumni Undergraduate Research Fellows. This program has been made possible by the generous financial support of **Mr. David Plastino**, who received his B.S. in Chemistry from the University of Delaware in 1978. Dave was one of **Professor John Bulkowski's** (FAC78-08) first undergraduate research students, and it was this experience that provided his inspiration for underwriting this Program.

Dave is a man of many talents. He was a member of Delaware's freshman basketball team and the Alpha Tau Omega fraternity. He received his M.B.A. degree from the

University of Michigan in 1981, whereupon he joined the Goldman-Sachs investment firm, eventually rising to the position of Vice-President of Investments. He then moved to UBS ("You and Us-UBS!"), where he became the Senior Vice-President of Investments prior to his retirement two years ago.

PICTURED WITH MR. PLASTINO ARE (LEFT TO RIGHT):

**Tyler Slouf** (sophomore BS/CHEG major from Bear, DE, working with **Prof. Svilen Bobev**)

**Michael Estephan** (junior BS/CHEM major from Downingtown, PA, working with **Prof. Catherine Grimes**)

**Jennifer McCord** (sophomore Honors BS/CHEM major from Miami, FL, working with **Prof. Neal Zondlo**)

**Carissa Smoot** (junior BS/CHEM major from Sellersville, PA, working in the laboratory of **Prof. Joel Rosenthal**)

**Andrew Dover** (sophomore Honors BS/CHEM, BA/XCE major from Ephrata, PA, working in the laboratory of **Prof. Joseph Fox**)

**Naijing Su** (junior BS/CHEM major from Newark, DE (originally from China), working in the laboratory of **Prof. Donald Watson**)



## 2012 B.S. CHEMISTRY GRADUATES

Derek T. Ahneman<sup>b</sup>  
Anupama B. Annigeri  
Cory M. Anson  
Kevin K. Anton<sup>a</sup>  
Gregory N. Furlong  
Michael J. Ghidiu<sup>b</sup>

<sup>a</sup> Honors Degree

Elizabeth A. Glinka  
Stephen F. Gonski (ENCH)  
Bryan J. Kessler  
Lauren McFadden  
Dorotyya Miketa<sup>a</sup>  
Jonathan R Saddler

<sup>b</sup> Honors Degree with Distinction

Lisa M. Thomanek<sup>a</sup>  
Matthew D. Thum  
Jonathan H. Tomczak  
Chauntae D. Tyson  
Austin C. Whittington

<sup>c</sup> Degree with Distinction

## 2012 M.A./M.S. GRADUATES

| Name                        | Mentor                | Baccalaureate Degree, School      |
|-----------------------------|-----------------------|-----------------------------------|
| Luke M. Ceo (MS)            | John Koh              | B.A., Skidmore College            |
| Huy (Mike) Dao (MS)         | Charlie Riordan       | B.A. LaSalle University           |
| Tatsiana Haidzinskaya (MS)  | Mary Watson           | B.S., University of Delaware      |
| Brittany A. Riggio (MS)     | Melinda Duncan (BISC) | B.S., Quinnipiac University       |
| Michael J. Scheuermann (MS) | Neal Zondlo           | B.A., LaSalle University          |
| Jing Wang (MS)              | Karl Booksh           | B.S., Peking University (PRC)     |
| Matthew C. Wells (MA)       | Thomas Beebe          | B.A., Franklin & Marshall College |

## GRADUATE OR PROFESSIONAL SCHOOL BOUND

Derek Ahneman, Princeton University (Ph.D. in Organic Chemistry), d.ahneman@gmail.com;

Cory Anson, Cornell University (M.S. in Chemical Engineering);

Nicholas Audette, Carnegie Mellon University (Ph.D. in Molecular Biology), njaudette@gmail.com ;

Anna Bruno, George Mason University (Accelerated 2nd Degree in Nursing) annabruno430@gmail.com;

Alexander Chau, Tufts University (M.S. in Public Health and Biomedical Sciences) zigzag0711@gmail.com;

William Cressman, University of Maryland, College Park (Ph.D. in Biochemistry);

Timothy Gilpatrick, National Institutes of Health (Post-baccalaureate Research Program in the Laboratory of Dr. Michael Lenardo) tgilpat@gmail.com;

Stephen Gonski, University of Alaska, Fairbanks (Ph.D. in Marine Studies) afgmegdel@comcast.net;

Alexa Hunter, University of Pittsburgh (Law School);

Soma Jobbagy, University of Pittsburgh (M.D./Ph.D. Program);

Jeffrey Lopez, University of Michigan (Ph.D. in Chemical Biology), lopejeff@umich.edu;

David Raciti, Johns Hopkins University (Ph.D. in Chemical Biomolecular Engineering), fletch448@aol.com;

Christopher Wright, Princeton University (Ph.D. in Molecular Biology), wrightcx@gmail.com

## HEADED FOR INDUSTRY, ETC.

Mohammad Alfehaid, SABIC Petrochemical Company (Research Chemist), modi4help@gmail.com;

Kevin Anton, U.S. Army Corps of Engineers (2nd Lieutenant);

Lara Dubuc, Wilmington Medical Examiner's Office (Toxicologist), ldubuc9@gmail.com;

Elizabeth Glinka, Medcomm (Account Coordinator), Elizabeth.a.glinka@gmail.com;

Danielle Kollmorgen, Merck & Co. (Manufacturing Division);

Stephen Lynn, Lancaster Laboratories (Pharmaceutical Testing), splynn300@gmail.com;

Dorotyya Miketa, DuPont Co. (Product Stewardship and Regulatory Affairs Analyst) dmiketa22@yahoo.com;

Kammas Murphy, Ursuline Academy (Chemistry Teacher);

Jonathan Saddler, U.S. Air Force (2nd Lieutenant, Space & Missiles) timtana@earthlink.net;

Laura Wertman, Hospira Pharmaceuticals (Research Chemist) kicker27@myway.com;

Austin Whittington, Quest Pharmaceutical Services (Bioanalytical Chemist).

## 2012 PH.D. GRADUATES

| Name                            | Previous College Degree                              | Dissertation Title   | Dissertation Chair |
|---------------------------------|--|--|--------------------|
| Fang Dai                        | B.S., M.Sc., Nankai University (PRC)                 | Dioxygen Activation and NO(x) Degradation by Low Valent Chromium Complexes   | Klaus Theopold     |
| Vidyadhar N. Daithankar         | B.S., M.Sc., University of Pune (India)              | Mechanistic Insights into the Erv/ALR Family of Sulfhydryl Oxidases  | Colin Thorpe       |
| Peter W. DeMatteo               | B.S., Ch.E., B.S., M.S., Lehigh University           | Synthesis of Pyrazines, Carbocycles, and Substituted Piperidines   | Douglass Taber     |
| Wiley A. Hall                   | B.S. University of Maryland, College Park            | Characterization of Oligomers in Secondary Organic Aerosols Using Advanced Mass Spectrometry Techniques  | Murray Johnston    |
| Matthew D. Hassink              | B.S. College of William & Mary                       | Methods for C-C Bond Construction and in Vivo Imaging Based on Strained Molecules  | Joseph Fox         |
| Joseph P. Klems                 | B.S. University of the Sciences, Philadelphia        | Characterizing Ambient Nanoparticles through the Acquisition and Analysis of Fast Particle Measurements  | Murray Johnston    |
| Marguerite K. McDonald          | B.S. University of the Ozarks                        | Post-Transcriptional mRNA Regulation in Neurons and Mechanisms of Post-Transcriptional RNA Modification in Vitro   | Junghuei Chen      |
| James N. Plampin                | B.S. University of South Carolina                    | Examining the role of Helicity in Asymmetric Induction in Salen Catalysis  | Joseph Fox         |
| Elizabeth M. (Sedlack) Monillas | B.S. Fairfield University                            | Characterization of Human Platelet Activating Factor Acetylhydrolase Type-II Oxidative Stress Response   | Brian Bahnson      |
| Chomdao Sinthuvanich            | B.X. Chulalongkorn University (Thailand)             | Designing Injectable "Beta-Hairpin" Hydrogels for Applications in Cartilage Tissue Engineering   | Joel Schneider     |
| Michael T. Taylor               | B.S. Salisbury University                            | Applications of Highly Reactive Carbenoids and Chiral Olefins in Stereoselective Synthesis and Bioorthogonal Labeling Chemistry                            | Joseph Fox         |
| Nicole E. Zander                | B.A. St. Olaf College                                | Electrospun Nanofibers: Formation, Characterization and Evaluation for Nerve Tissue Engineering Applications   | Thomas Beebe       |
| Yang Zhong                      | B.S. University of the Sciences and Technology (PRC) | Probing Small Molecule Solution Properties and Molecular Recognition Processes via Molecular Dynamics Simulations Incorporating Electrostatic Polarization | Sandeep Patel      |

## 2012 GRADUATE STUDENT PLACEMENTS

**Fang Dai**, Penn State University (Post-doc, Prof. Donghai Wang, Department of Mechanical and Nuclear Engineering) dai\_fang621@hotmail.com; **Vidyadhar Daithankar**, University of Delaware (Post-doc, Prof. Sharon Rozovsky); **Huy (Mike) Dao**, University of Delaware (Ed. D. Program); **Peter DeMatteo**, NIH (Post-doc); **Tatsiana Haidzinskaya**, DuPont Co. (Associate Investigator, Department of Chemicals and Fluoroproducts Research and Development)

tatsiana.haidz@gmail.com; **Wiley Hall**, U.S. Department of Agriculture, Fresno, CA (Research Chemist), **Matthew Hassink**, NIH/NIDDK (Post-doc, Dr. Daniel Appella); **Joseph Klems**, National Institutes of Science and Technology, Gaithersburg, MD (Post-doc) joey.klems@gmail.com; **Marguerite McDonald**, Drexel College of Medicine (Post-doc, Dr. Seena Ajit, Pharmacology and Physiology Department); **James Plampin**, University of Kansas (Post-doc, Prof. Jeffrey Aube); **Brittany Riggio**, AstraZeneca (Regional Sales Specialist);

**Elizabeth (Sedlack) Monillas**, Hampton University (Post-doc, Prof. Neelam Azad); **Michael Scheuermann**, Cytec Engineered Materials, **Michael Taylor**, University of Cambridge, UK (Post-doc, Prof. Matthew Gaunt); **Jing Wang**, National Center for Nanoscience and Technology, Beijing, China; **Nicole Zander**, Edgewood Laboratory, Aberdeen (MD) Proving Grounds (Research Scientist); **Yang Zhong**, Novartis, LaJolla, CA (Post-doc).

## GRADUATE SCHOOL PLACEMENTS, 1994-2012

|                            |                               |
|----------------------------|-------------------------------|
| Adelphi 1                  | Harvard 4                     |
| Alaska-Fairbanks 1         | Hawaii 2                      |
| Arcadia 1                  | Illinois-Chicago 1            |
| Boston College 3           | Illinois-Urbana 7             |
| Boston University 2        | Imperial College, London 1    |
| Brigham Young 1            | Indiana 4                     |
| Brandeis 1                 | Johns Hopkins 4               |
| Cabrini 1                  | Kansas 1                      |
| California-Berkeley 1      | Lehigh 2                      |
| California-Irvine 5        | Maryland-Baltimore 1          |
| California-Los Angeles 1   | Maryland-Baltimore Co. 4      |
| California-San Diego 3     | Maryland-College Park 6       |
| California-San Francisco 3 | Massachusetts 1               |
| California-Santa Barbara 1 | Michigan 4                    |
| Cal Tech 5                 | Michigan State 1              |
| Carnegie Mellon 1          | Minnesota-Twin Cities 2       |
| Case Western 4             | MIT 7                         |
| Clemson 1                  | Montana State 1               |
| Colorado State 1           | Montclair State 1             |
| Columbia 5                 | New Castle (England) 1        |
| Connecticut 3              | New Hampshire 2               |
| Cornell 8                  | NYU 1                         |
| Delaware 20                | North Carolina-Chapel Hill 10 |
| Drexel 1                   | North Carolina-Greensboro 1   |
| Duke 2                     | Northeastern 1                |
| Emory 1                    | Northwestern 1                |
| Florida International 1    | Notre Dame 1                  |
| Florida State 2            | Ohio State 4                  |
| George Mason 1             | Oregon 1                      |
| Georgetown 2               | Pace 4                        |
| George Washington 2        | Penn 11                       |
| Georgia 1                  | Penn State 9                  |
| Gordon Conwell 1           | Pittsburgh 3                  |
| Theological Seminary       | Princeton 8                   |

|                            |
|----------------------------|
| Purdue 2                   |
| Rhode Island 1             |
| Rochester 2                |
| Rutgers 6                  |
| St. John's 1               |
| Scripps 2                  |
| Selznick School for Film 1 |
| Preservation               |
| Shenandoah 1               |
| Southern Mississippi 1     |
| Stevenson 1                |
| SUNY-Buffalo 2             |
| SUNY-Stony Brook 1         |
| Syracuse 1                 |
| Temple 3                   |
| Tennessee 1                |
| Texas 4                    |
| Texas A&M 3                |
| Thomas Jefferson 5         |
| Toledo 1                   |
| Toronto 1                  |
| Towson 1                   |
| Tufts 2                    |
| Vanderbilt 1               |
| Villanova 1                |
| Virginia 3                 |
| VPI & SU 1                 |
| Wake Forest 2              |
| Washington (St Louis) 1    |
| West Chester 1             |
| Wisconsin 1                |
| Yale 2                     |
| Yeshiva                    |

## ALUMNI NEWS

### FiftyandSixty-YearACSMembers

Six more UD graduates were added to this "good and faithful servant" roll this past year: **Donald L. Knauss** (BS52) [60-year member], **Donald E. Hoffman** (PhD60) [60-year member], **Robert D. Bach, Ph.D.** (BA62, MA64), **Arthur J. Coury, Ph.D.** (BS62), **Richard L. Hively** (MS62, PhD66), and **Donald M. Schoengold** (PhD71). Heartiest congratulations to all! (see *C&E News*, 4/9/12, pp. 44-57 for complete listing.)

### ACS Fellows

The 2011 class of ACS Fellows (213 strong – see *C&E News*, 8/8/11, pp. 58-59) included three UD alumni: **Yorke E. Rhodes, Ph.D.** (MS59), Professor Emeritus of Chemistry, New York University; **Arthur J. Coury, Ph.D.** (BS62), retired Vice-President, Biomaterials Research for the Genzyme Corp., member of the UD Wall of Fame, and (the late) **Anita J. Brandolini** (MA82, PhD83), Assistant Professor of Chemistry at Ramapo College of New Jersey.

### 50's

**Martin B. Price** (PhD56), having retired from AKZO as Director of Research in 1992, is living in Pittsburgh, PA mbp132@yahoo.com.

**Charles K. Skinner**, D.D.S. (BS57), a son of (the late) **Prof. Glenn S. Skinner** (FAC 28-58), died on 9/4/11, in Newark from respiratory failure. Having practiced dentistry in Newark for 43 years, he nonetheless regarded as his greatest achievement the editing of the legislative bill that created Delaware's educational program for autistic children – one of the first and most comprehensive in the U.S.

### 60's

**Henry Russell, Ph.D.** (BS63, MS65) has been a faculty member at Johnson C. Smith University since 1970, having been promoted to professor in 1991.

**Dale Patterson Adams** (MS67) is participating, while retired in Chattanooga, TN, in a unique project for her church, the

Baltimore Ethical Society. She knits ca. 150 caps per year for premature babies at the Mount Washington Pediatric Hospital in Baltimore.

**Arthur J. Christensen, Ph.D.** (BS67), a chemistry teacher in the Downingtown (PA) Area School District, has added a third name to the short list of chemistry majors who played significant roles on the Fightin' Blue Hens football team. Art was a member of the 1963 Small College National Championship team, coached by the Admiral, Dave Nelson. Art lettered for three years (1963-65), playing (#61) linebacker on defense and guard on offense. Those were the days! ajchris61@aol.com

**John E. Gardner, Jr.** (PhD67) suffered a massive stroke three years ago, just before he retired from Bayer after a 40-year career. He now resides in a nursing home in Lancaster, PA.

Periodically, in my role as the Editor of the Blue Hen Chemist, I receive truly moving statements from former students. I just received one from **Horst F. Schran, Ph.D.** (BS68), who is retiring, after 36 years, as Global Head of Oncology Clinical Pharmacology for Sandoz/Novartis. In it, he lauds the importance of what has become the sine qua non for both our Department and the University of Delaware: undergraduate research. Horst worked in the laboratory of (the late) **Prof. Harold Kwart** (FAC51-83). He also describes, quite eloquently the impact that the Founding Fathers and Mother of our Department had on his career: (the late) **Prof. Betty Dyer** (33-71), **Bill Mosher** (45-72), **Jim Moore** (55-87), **John Wriston** (55-85), and **Carl von Frankenberg** (61-97); as well as a few still living in retirement: Profs. **Wally McCurdy** (59-92), **Conrad Trumbore** (60-97), and **Ed Schweizer** (61-94), plus one (yours truly) who is still hanging in there.

In like manner, **Shirish K. Shah** (PhD68) described how he gave up a life of privilege in India and arrived in the U.S. at the age of 20, having forsaken his inheritance. His UD education led to his career in higher education, most recently at Towson University.

**Christiane (White) Grossman** (BA69) passed away from a stroke on 11/12/11. Retired from Union Carbide, for whom she started working in 1991, Chris was a trailblazer for women in sales in the rubber industry.

### 70's

**Stephan P.B. Taylor, Ph.D.** (BS70) has joined the retirement ranks. Steve was an Associate Department Director in Process Development for Bristol-Myers Squibb, for whom he worked 36 years. stephanpbtaylor@gmail.com

**John C. (Josh) van Houten, Ph.D.** (BS70) has informed Your Editor that I have "outlasted" yet another one of my former students. Indeed, after 32 years at St. Michael's College, Colchester, VT, he has transitioned to Emeritus status. Josh's impact on the St. Michael's chemistry program was extraordinary, especially in the area of research. He was designated the Leavy Family Professor of Chemistry in 2004 (the College's first endowed chair position), having received SMC's Faculty Scholarship Award in 1998. Your Editor had the pleasure of presenting the keynote lecture at the dedication of SMC's Cheray Science Hall in 1994. jvanhouten@smcvt.edu

**Eugene J. Volker** (PhD70) has taken down his professorial shingle at Shepherd College, Shepherdstown, WV, where he has taught for 43 years. evolker@shepherd.edu

**Charles W. Stanger, Jr.** (PhD74) and his wife, Jo, have embarked on a "gypsy lifestyle," and will be traveling the open road in their RV for the foreseeable future. jcstanger@gmail.com

**Stephen L. Longacre, Ph.D.** (BA75) is a Senior Regulatory Manager for FMC Agricultural Products, based in Philadelphia. stephen\_longacre@fmc.com

**Keith E. Senecal, M.D.** (BS75) is an emergency room physician in the Chambersburg (PA) Hospital – real life ER! senecalk@gmail.com

**Thomas A. Albright** (PhD76) has also sent me a very introspective retrospective. He has

## ALUMNI NEWS

formally retired from teaching, after a stellar career at the University of Houston. His book on Orbital Interactions has become a classic, and he is in the process of finishing the second edition. His transition from synthetic organic chemist, working with **Prof. Ed Schweizer**, to a leading theoretician in organometallic chemistry is a story in itself. Suffice it to say that it had its roots in a course in group theory taught by (the late) **Prof. Wayne P. Anderson** (FAC68-75), and culminated in Tom's post-doc with Nobel Laureate Roald Hoffmann at Cornell. talbright@uh.edu

**Debra H. Norris, Ph.D.** (BA77) has been appointed by A&S **Dean George Watson** to be Interim Associate Dean for the Arts. She is also the Associate Dean for Graduate Studies and Chair of the Department of Art Conservation. dhnorris@udel.edu

**Alan H. Ullman** (PhD77) has retired, after 33+ years, from Procter and Gamble, where he was a Senior Scientist. Alan taught a short course on "Analytical Chemists in Industry" at the Eastern Analytical Symposium for many years. ahullman@gmail.com

**Silvia S. Jurisson, Ph.D.** (BS78), Professor of Chemistry at the University of Missouri, Columbia, is the 2012 recipient of the Glenn T. Seaborg Award for Nuclear Chemistry, sponsored by the ACS Division of Nuclear Chemistry and Technology.

### 80's

**Anita J. Brandolini, Ph.D.** (MA81, PhD83), Assistant Professor of Chemistry at Ramapo College of New Jersey, in Mahwah, died at her home in Hillsboro, NJ on 3/10/12. After spending the first 17 years of her career at Mobil Chemical, in Edison, NJ, she transitioned to academia, where she held professorial positions at the College of New Jersey, Ewing, William Paterson University, and Fairleigh Dickinson University, before joining the Ramapo faculty in 2007. [see *C&E News*, 5/21/12, p.39]

**Peter T.A. Reilly, Ph.D.** (BS81), following a long, successful career at Oak Ridge National Laboratory, is now an Associate Professor of Chemistry at Washington State University, Pullman.

After seven years at his doctoral alma mater, four as Dean of the College of Arts and Sciences, and three as University **Provost**, **Tom Apple** (PhD82) is moving to paradise, otherwise know as Oahu, where he will serve as the Chancellor of the University of Hawaii at Manoa. There, he will be reunited with **Professor Emeritus Garry Rechnitz** (FAC78-89), who retired from the UH Chemistry Department in 2002.

**James A. Daley** (BA82) is a Field Engineer with Emerson Process Management, in Houston, TX jim.daley2@emerson.com

**Eileen Chu Hing** (BS82), President of ZIOS Corporation, has been granted her first U.S. Patent (#8, 176, 318) for "Method and System for Providing a Customized Network." Her son, Chaz, will be a senior BA/CHEM major this coming year. ec.hing@zios3.com

**Lawrence M. Principé, Ph.D.** (BS83), Professor of both Organic Chemistry and the History of Science at Johns Hopkins University, was the subject of an in-depth profile in *C&E News* (8/29/11, p.40).

**Barbara Larsen** (PhD84), Technology Fellow at DuPont's Central Research and Development Department, was the recipient of the 2011 ACS Delaware Section Award.

**Eric Broadway, Esq.** (BA85) is now a chemistry teacher at the Lawrenceville (NJ) School. ebroadway@aol.com

**H. Drake Williams III, Ph.D.** (BS87) is the Academic Dean and Professor of New Testament at the Tyndale Theological Seminary in Amsterdam, the Netherlands. drake@tyndale.nl

**Richard O. Crossland, Jr.** (BA88) started his executive coaching business three years ago, and, in each of those years, has won a major international award from his franchisor, Action Coach. [see *Blue Hen Messenger*, 19(2), 54-55(2011)]

**Kristi Kiick, Ph.D.** (BS89), Deputy Dean of Engineering and Professor of Materials Science and Engineering and Biomedical Engineering at the University of Delaware, has been inducted into the American Institute for Medical and Biological Engineering

College of Fellows, Class of 2012.

**James F. Mack** (PhD89) is part of a research team at GlaxoSmithKline, in Collegeville, PA, cited by *C&E News* (4/16/12, pp.42-45) for developing GSK2636771, an experimental drug designed to treat cancer patients whose tumor tissue has greatly reduced amounts of a tumor suppressor called phosphatase and tensin homolog (PTEN). PTEN is the second most inactivated tumor suppressor in cancers after p53.

### 90's

**Jonathan T. Goodman, Esq., Ph.D.** (BS94) has forsaken the law firm where he had been practicing to go solo. His new venture, "Synthesis Intellectual Property" is intended to help people working in the chemical arts to plan, develop, and protect their intellectual property. jtg@synthesisip.com

**Thomas E. Prisinzano, Ph.D.** (BS95) is an Associate Professor in the Department of Medicinal Chemistry at the University of Kansas, Lawrence. prisinza@ku.edu

**Gautam Bhandari** (PhD96) is a Managing Director of Infrastructure for Morgan Stanley, in New Delhi, India gautam.bhandari@morganstanley.com

A familiar name was found on the list of committee members who wrote the 2011 American Chemical Society Standardized General Chemistry Examination: **William J. Donovan, Ph.D.** (BS96), Associate Professor and Director of Freshman Chemistry at the University of Akron. Bill will serve as Chair of the Committee who will write the 2013 exam. wdonova@uakron.edu

**Jennifer (Detrich) Jewson** (PhD96) is a Manager, Acetyls Americas for LyondellBasell.

**Andrew P. Charnik** (BA97) is now associated with National Public Radio, in Washington, DC.

**Michael J. Fevola, Ph.D.** (BS98) is an Associate Director, New Technologies for Johnson & Johnson Consumer & Personal Products Worldwide, in Skillman, NJ. mfevola@its.jnj.com

**Sujata Bhatia, M.D., Ph.D.** (BS99), in addition to being the Assistant Director for Undergraduate Studies in Biomedical Engineering at Harvard University, is also Professor of the Practice of Chemical and Biological Engineering at Tufts University. sbhatia@seas.harvard.edu

### 00's

**Daniel R. Dries, Ph.D.** (BS00) has joined the professorial ranks. Starting in September, he will be an Assistant Professor of Chemistry at Juniata College, Huntingdon, PA

Your Editor had, once again, the pleasure of introducing one of our outstanding young alumni as the keynote speaker at the 29th Annual Senior Thesis Symposium on 5/5/12. **Joshua S. Figueroa, Ph.D.** (BS00) is now an Assistant Professor of Chemistry at the University of California – San Diego. Josh has completed an impressive research trifecta: NSF CAREER Award (2010), Alfred P. Sloan Research Fellow (2011), and a DOE CAREER Award (2012). jsfig@ucsd.edu

**Christopher D. Incarvito** (MA00, PhD03) is the newly minted Director of Research Technology at Yale University, New Haven, CT. In this role, he oversees the research operations and infrastructure at Yale's massive expansion campus, now known as West Campus. The site sits upon land formerly occupied by Bayer Pharmaceuticals. Its 20 buildings on 136 acres will eventually house six new research institutes. (Sounds a lot like our new STAR Campus (the 277 acres that once housed the now leveled Chrysler Assembly Plant.) Chris is married to **Melissa (Vargo)** (PhD04). They live with their two daughters, Samantha (3) and Julianna (21 months) in Rocky Hill, CT. chris.incarvito@yale.edu

**Nicole C. Goodwin, Ph.D.** (BS01) is a member of a Lexicon Pharmaceuticals research team highlighted in *C&E News* (4/16/12, pp. 42-45) for its development of LX4211, an orally administered drug candidate for type 2 diabetes. The molecule is a dual inhibitor of sodium-glucose transporters 1 and 2, also known as SGLT1 and SGLT2.

**Michael Scoblete** (BS01) is a Chemistry and Philosophy Teacher at the West Morris Regional High School, Mendham, NJ. mscoblete@wmmhs.org

**Matthew J. Swierzbinski, M.D.** (BS02) has completed his residency in internal medicine at The George Washington University in DC. Next up: a two year clinical fellowship in infectious diseases at GWU. mjswiz@hotmail.com

**Frederick J. Cox** (PhD03) is a Branch Chief of the Edgewood Chemical Biological Center at the Aberdeen (MD) Proving Grounds. He manages 25 scientists who are entrusted with filters that protect Warfighters and civilians from potentially dangerous airborne chemicals and biological hazards.

**Deidre L. Blackwell, Ph.D.** (BS04) is a Post-doctoral Research Chemist at the USDA-ARS Center for Grain and Animal Health Research in Manhattan, KS. dlb382@yahoo.com

**Stephen G. Brohawn, Ph.D.** (BS04) is the first author on a paper co-authored by Nobel Laureate Roderick MacKinnon, at Rockefeller University [*Science*, 335, 436 (2012)].

**Damien Thévenin** (PhD06) is an Assistant Professor of Chemistry at Lehigh University, Bethlehem, PA. damien.thevenin@lehigh.edu

**Donald J. Kotowski** (BS07) is a Research Associate II – Protein Biochemistry at Regeneron Pharmaceuticals, Inc., Tarrytown, NY. donald.kotowski@regeneron.com

**Patrick J. Knerr** (BS08), a doctoral candidate at the University of Illinois, Urbana-Champaign (your Editor's first teaching venue, in 1963-64) returned to Newark, courtesy of a Pines Travel Award, on 9/26/11 to present a seminar on "Chemical and Enzymatic Approaches to Lantibiotic Syntheses." Pat and his wife, Amy, were married in 7/11. pjknerr@gmail.com

**Andrea J. Passarelli, D. Pharm.** (BS08), who received her D. Pharm. degree from the School of Pharmacy at The University of Maryland-Baltimore County, is spending her residency at the Johns Hopkins University Hospital.

**Jennifer B. Schnitker** (BS08) is enrolled in the Winterthur Graduate Program. jschnitkr@gmail.com

**Xiaochun Zhang** (PhD09), now with Biolin Scientific, also returned to campus on 10/19/11 to present a seminar on "Nanoscale and Molecular Study of Interfaces and Interactions on Surfaces: QCM-D and Langmuir Technologies."

### 10's

**Kyle F. Davis** (BS10), a doctoral candidate in the Department of Environmental Sciences at the University of Virginia, Charlottesville, has had his first co-authored paper on "Global Desertification: Drivers and Feedbacks" accepted by *Advances in Water Resources*. kfdavis15@gmail.com

**David J. Meninger** (BS10), a staff member for Young Life Baltimore County, is engaged in Christian ministry with students at Hereford and Loch Raven High Schools, both in MD. dave.meninger@gmail.com

**Charles F. Polotti, Jr.** (BS11) has completed his first year of study at Drexel University's School of Medicine. cpolotti@gmail.com

Two of our most recent graduates, **Nicholas J. Audette** (BS12) and **Anna M. Bruno** (BS12) will literally put their pedals to the metal this summer in support of a worthy cause. Nick and Anna will bicycle ca. 3850 miles across the U.S. from Portland, ME to Santa Barbara, CA for Bike and Build, an organization that provides competitive grants to local affordable housing groups across the country.

**Huy (Mike) Dao** (MS12) will embark on his Ed.D. studies at the University of Delaware this coming fall. mdao@udel.edu



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## Thank You

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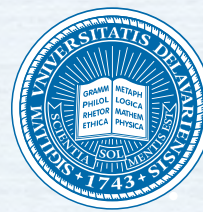
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Sincere thanks to all the friends and alumni who have made generous contributions over the past year. Your gifts are used for many worthwhile purposes – to create professional development opportunities for our students, to support programs that enrich our curriculum, to fund special events that deepen our understanding of modern chemistry and to reward exemplary performances.

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**Kevin Scott Beall Memorial Awards [1994]:** These awards of \$500 are presented to the most outstanding freshman chemistry and biochemistry majors. They are given in the memory of a graduate of the Department who was killed in an automobile accident in 1993.

**Wallace H. Carothers Scholarships [1980]:** These awards, presented by an anonymous donor to students in chemistry or biochemistry, are to commemorate the achievements of this pioneer in polymer chemistry. The \$500 awards, based on academic merit, have traditionally been given to the students deemed to be our most outstanding sophomore chemistry and biochemistry majors.

**Frank W. Collins Undergraduate Award in Biochemistry [2002]:** An endowed award given to the graduating senior who best exemplifies scholarship in biochemistry. The award consists of an honorarium of \$400, provided by the Frank W. Collins Endowment.

**Elizabeth Dyer Excellence in Chemistry and Biochemistry Undergraduate Award Fund [1989]:** supports awards (currently two \$2.5K awards/year - one to a CHEM major, one to a BIOC major) given to senior majors in recognition of excellent performance in one or more of the following areas: scholarship, research and service to the Department. The awards honor Prof. Elizabeth Dyer, faculty member 1933-1971.

**Elizabeth Dyer Excellence in Teaching Award Fund [1982]:** supports awards (currently \$300-\$600, depending upon the number of awardees) given to graduate teaching assistants in the Department for excellent achievement in the teaching of chemistry.

**Quaesita Drake Scholarship Fund [1969]:** supports scholarships (currently four \$1.5K scholarships/year) given to outstanding junior or senior women who are chemistry or biochemistry majors, on the basis of academic accomplishment and potential and excellence of character. The funds for these awards are obtained from gifts of alumni and alumnae to honor Prof. Quaesita Drake, chairperson of the Women’s College Chemistry Department for over 25 years.

**Alberta E. Edge Fund:** This fund, created from the estate of **Alberta E. Edge** (BA35), underwrites the financial component of the awards given to outstanding senior (American Institute of Chemists Award, currently \$500) and junior (American Chemical Society Award, currently \$500) CHEM or BIOC majors, as well as the two senior Merck Index Awards (currently \$250 each).

**Brennie E. Hackley, Jr. Award for Excellence in Research [2009]:** Given annually [currently \$2,000] to a graduate student who has demonstrated excellence in research. It honors the memory of **Dr. Brennie E. Hackley, Jr.** (UD Ph.D. ’57), who devoted his remarkable 57-year career at the Edgewood Chemical and Biological Center, Aberdeen, MD Proving Grounds to the development of medical antidotes to chemical warfare agents.

**Wallace H. McCurdy, Jr. Undergraduate Award in Analytical Chemistry [2000, reconstituted 2007]:** An award given to the graduating senior in the Department of Chemistry and Biochemistry who best exemplifies scholarship in analytical chemistry. The award consists of an honorarium of \$400. The award honors **Wallace H. McCurdy, Jr.**, faculty member 1959-1992.

**William A. Mosher Fund:** supports fellowships for CHEM/BIOC graduate students. The fellowships honor **Prof. William A. Mosher**, who chaired the Department from 1945 to 1969.

**James A. Moore Undergraduate Award in Organic Chemistry [2000]:** An award given to the graduating senior in the Department of Chemistry and Biochemistry who best exemplifies scholarship in organic chemistry. The award consists of an honorarium of \$400. The award honors **Prof. James A. Moore**, faculty member 1955-1988.

**Joseph H. Noggle Undergraduate Award in Physical Chemistry [1999]:** supports an annual award (currently \$400) given to the graduating senior who best exemplifies scholarship in physical chemistry. The award honors **Prof. Joseph Noggle**, faculty member 1971-1998.

**NUCLEUS Fund:** The NUCLEUS (Network of Undergraduate Collaborative Learning Experiences for Underrepresented Scholars) Program assists underrepresented ethnic students earn their bachelor’s degree in biomedically related disciplines. Gifts to the NUCLEUS Program will support retention and post-baccalaureate placement programming that enhance the experiences of underrepresented ethnic students in the Department.

**Gene J. and Frances E. Schiavelli Undergraduate Research Fellowship [2005]:** An award (currently \$500) given to an undergraduate chemistry or biochemistry major who shows special promise as a research scientist, as demonstrated by work accomplished during his or her academic career. The award is supported by an endowment provided by **Dr. Mel Schiavelli**, University Provost (1994-2001).

**C. Frank Shaw III Undergraduate Award in Inorganic Chemistry [1992]:** The award, presented by **Dr. C. Frank Shaw III** ’66, Professor of Chemistry at Illinois State University, is given for outstanding classroom and laboratory performance in inorganic chemistry by an undergraduate chemistry or biochemistry major. The stipend is \$400.

**C. Frank Shaw III Undergraduate Inorganic Research Fellowship [2010]:** This \$500 award, endowed by Dr. C. Frank Shaw III ’66, Professor of Chemistry at Illinois State University, is given to an undergraduate CHEM/BIOC major who demonstrates exceptional aptitude and promise for research in the area of inorganic chemistry. The primary intent of the Fellowship is directed at providing financial support for a junior CHEM/BIOC major engaged in full-time research in inorganic chemistry during the winter (usually) or summer session. Awards to senior, sophomore, or freshmen students are not precluded, should the situation warrant them. Selection of the recipients will be made by the members of the INOR Division.

**Joel Silver Award Fund [1973]:** supports an award (currently \$300) given in memory of **Joel L. Silver**, a graduate student killed in a traffic accident in his last doctoral year (1971), that recognizes excellent achievement in research, as well as a highly professional presentation of results at an annual symposium.

**Glenn S. Skinner Award Fund [1968]:** supports an annual award (currently \$3K) to a graduate student in recognition of distinction in scholarship, research and service to the Department. The award honors **Prof. Glenn S. Skinner**, who was a chemistry faculty member from 1928 to 1958.

**Trofimenko Memorial Prize [2007]:** This \$500 award, in memory of **Dr. Swiatoslaw ‘Jerry’ Trofimenko**, creator of the polypyrazolylborate ligand system and visiting scholar in the Department from 1996 until his death in 2007, is given annually to a graduate student in the Department who has distinguished him/herself in the area of ‘creative inorganic synthesis.’

**Carl A. von Frankenberg Undergraduate Award in Chemistry Education [2005]:** supports an annual award (currently \$400) given to the graduating senior who best exemplifies scholarship in, and the practice of, chemistry education. The award honors **Prof. Carl von Frankenberg**, faculty member 1961-1997.

### WHAT GOES AROUND, COMES AROUND!

With the departure of **Jen Durkin** for the private sector, I assumed that the appearance of the BLUE HEN CHEMIST would change significantly this year, for Jen had been responsible for the layout and formatting of the BHC for the past five years. Happily, that proved not to be the case. Through the cooperation of **Connee McKinney** (Communications) and **Dan Slaten** (University Printing), it proved to be both possible and desirable to outsource this task to - Jen Durkin and her business partner Liz Ihrig!

Although outsourcing, in a different context, has become a lightning rod for criticism, I couldn’t be more pleased with this turn of events. The other members of the BHC production team remain unchanged. **Linda Staib** again performed the major task of word processing, and **Susan Cheadle** again served as the archival repository for many of the pictures shown herein. To all go my sincere, profound thanks for jobs WELL DONE!



# College of Arts & Sciences



DEPARTMENT OF CHEMISTRY  
& BIOCHEMISTRY

## PERSONAL INFORMATION FOR CHEM/BIOC RECORDS

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| Last Name | First Name or Initial | Middle Name or Initial | Previous Name |
|-----------|-----------------------|------------------------|---------------|
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Delaware Degree(s) [Date & Advisor] \_\_\_\_\_

Home Address \_\_\_\_\_

Home Phone ( \_\_\_\_\_ ) \_\_\_\_\_ Home E-mail \_\_\_\_\_

Company \_\_\_\_\_ Address \_\_\_\_\_

Your Position \_\_\_\_\_ Company Phone ( \_\_\_\_\_ ) \_\_\_\_\_

Fax Number ( \_\_\_\_\_ ) \_\_\_\_\_ Company E-mail \_\_\_\_\_

Other Degree(s) [Date(s) & School(s)] \_\_\_\_\_

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The Departmental Seminars and Colloquia schedules are located on the UD Departmental web page ([www.udel.edu/chem](http://www.udel.edu/chem)).

Please use the remaining space to give information about yourself and your family. Do you have any questions or requests? Please let us know! \_\_\_\_\_

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