

### From the Chair



Welcome to the annual newsletter of the Elizabethtown College Department of Chemistry and Biochemistry! It has been another busy year for us, as we welcomed a new College president, engaged in a campus-wide strategic planning process, and continued to challenge one another through the ongoing teaching, learning, and research occurring in Musser. Let me share a few highlights from 2011-2012:

Kristi Kneas

In an effort to stay connected with you, we have maintained the Elizabethtown College Department of Chemistry & Biochemistry Facebook Page. We hope that you "Like us!"

- We completed an Alumni survey which has allowed us to update our files and identify strengths and growth opportunities related to our programs and facilities.
- Eighteen departmental majors were engaged in independent research for credit during the 2011-2012 academic year. Students reported results of their research at a number of meetings: National ACS meeting in San Diego (8 students), UMBC Undergraduate Research Poster Session (8 total- 4 divisional first prizes and 3 second prizes), Intercollegiate Student Chemists' Convention (2 total-1 first prize), and Scholarship and Creative Arts Day (11).
- Four departmental majors and alumni were co-authors on one of 2 peer-reviewed publications in *Acta Crystallographica* and the *European Journal of Organic Chemistry*.
- Eight students conducted independent research on campus with 5 different faculty members during Summer 2012, and 3 students took advantage of industrial internships at Bristol-Myers Squibb, Teleflex, Inc., and Lancaster Labs.
- Three majors studied and/or served abroad in Ghana, Japan, and New Zealand.
- Four juniors were inducted into the Chemistry Honor Society, Gamma Sigma Epsilon.
- At our annual Awards banquet, we honored 10 students for their exceptional scholarship.
- E-Town's Student Affiliates Chapter of the American Chemical was recognized by the ACS as a Commendable Chapter for its 2011-2012 activities.

I enjoyed teaching all of the analytical chemistry courses last year, including Advanced Instrumental Analysis, during which students engaged in a spirited debate on the authenticity of the Vinland Map. We also launched Integrated Lab, a capstone



Garrison Behan Future Chemist

course to supplement the independent research experience by providing students an opportunity to address a fundamental research question from multiple sub-disciplinary perspectives. With the help

of my research students (Sarah Strohecker '12, Liz Costello '12, Mollie Mares '13, Morgan McKenney '13, Elaina Truax '13, and Amy Wagner '15), we've made progress on our luminescence-based sensing and ink authentication projects. My son, Garrison, started kindergarten this year, and my husband, Daniel Behan, accepted a position with medical publisher, Wolters-Kluwer. We hope to see you or hear from you soon!

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Integrated Lab



### 2012 Stambaugh Award Winner



The 2012 O. F. Stambaugh Alumni Award winner is Dr. Debbie (Aumen) Wright '77 (c). Dr. Wright was presented the award during Homecoming ceremonies on Saturday, October 20, 2012, in the Masters Center. Also pictured are Dr. Kristi Kneas, department chair (I) and David Wright (r), spouse of Dr. Wright.

This year's recipient of the O.F. Stambaugh Outstanding Chemistry Alumni Award is Dr. Debbie L. (Aumen) Wright '77. Debbie grew up in the Reading area, came to Elizabethtown College in 1973, was a member of the class of '77, but graduated in December 1976 with degrees in Chemistry/Medical Technology and Biology. Her E-town honors included the Medical Technology

Award, the Alpha Lambda Delta Book Award and the Weaver Biology Award. After graduation, she completed a year in clinical medical technology at The Reading Hospital and Medical Center, achieving her MT(ASCP) registration. She worked in clinical labs of Braddock General Hospital in Pittsburgh and The Reading Hospital and Medical Center. During this time she married and had two children, Jenna and Evan. Everyday life was full, but there came a time when there was an urge to follow a path previously considered, but not taken. This led to acceptance at the University of Pennsylvania, School of Veterinary Medicine, and a VMD degree in 1998. Dr. Wright practiced clinical veterinary medicine at a thriving small animal practice in Sinking Spring for 13 years as an associate, and then as medical director for another year before accepting her current position of Practice Development Veterinarian for Hill's Pet Nutrition based in the Minneapolis, MN, area. Dr. is responsible for developing Hill's relationships and training for veterinary specialists, general practice veterinarians and their health care team members, and territory managers. Dr. Wright is a master gardener and enjoys reading, hiking and skiing. She and her husband, David, are excited to explore this new area, and experience another part of the country, winter and all!







new members were inducted into the Rho Eta chapter of Gamma Sigma Epsilon, the national chemistry honor society. Only students with a grade point average of 3.3 or higher in chemistry are invited to join. Pictured at right in the front row (*l-r*) are members Dean Hummert '13(*new*); Lydia Whipple '13 (*new*); Syeda Ahmad '12, treasurer; and Elaina Truax '13 (*new*). In the back row (*l-r*) are Nicole DeMaris '13 (*new*); Ayusa Sinha '12, vice president; John Tellis '12, president; and Timothy Goldkamp '12, recorder/secretary. We congratulate these outstanding chemistry majors.





#### **FACULTY NEWS**



Tom Hagan

The other day we had horizontal rain, lots of rain, and lots of wind. Apparently Kris Tussing was summoning the elements to let me know the extent of her wrath if I did not get my section of the newsletter to her. Here is my portion!

The 2011-2012 academic year was a good one. Students continued to keep me busy and out of trouble. Betty Ahmad completed her work on detection of cortisol levels, and has now moved on to medical school at Penn State Hershey. We started a

tradition new department annual holding the first pre-Thanksgiving feast at the mega buffet, Shady Maple. 2012 graduate Steve Boyer was instrumental in getting that going, so thanks, Steve!



The aftermath of the experience as well as the trendy departmental fashion-wear is shown in the picture above.

Our Open Book common read experience for the community was a rousing culminating with the author, Rebecca Skloot serving as the keynote speaker for Scholarship and Creative Arts Day. This year, the focus shifts to the fracking issue and the drilling of the Marcellus Shale in upstate Pa. with Seamus McGraw's book. The End of Country.

I, along with some others in the department, attended the Biennial Chemistry Conference on Education at Penn State this summer and this allowed me to connect with a department alumnus, Josh Boyer. Josh happens to be a post-doc in the same lab that one of our other alums, Chris Strulson, is pursuing his doctorate. Blue Jays apparently like to stay in their flocks! This academic year I have three students doing their senior research projects with me. Two of those students are performing their forensic research/internship with me, exploring protein and lipid content of hair. Anyone wanting to donate their hair for analysis, step to the front of the line... Best wishes to you all, and please keep in touch.



**Gary Hoffman** 

Life has returned to normal (whatever that means!) and I now have a full teaching load and several students helping me with my research. The revisions made in the physical chemistry sequence have kept me on my toes and I

have gotten more involved in the general chemistry courses. Although I enjoy teaching the first-year students, there are certain challenges involved. I find it especially challenging moving from a lecture on the solution of the Schrödinger equation for the hydrogen atom, for instance, to one on how to balance chemical equations. Sometimes I forget which class I'm in and have to step back and take a deep breath.

My AIMD calculations on propylene carbonate are continuing. I've been able to get computer time on Kraken (a supercomputer at Oak Ridge) and have been plugging away. I hope to get enough data to perform some statistical analysis before too long.

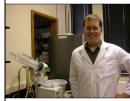
We've already seen some interesting results on the nanotube forest in propylene carbonate. The bulk propylene carbonate calculations should provide a useful reference point from which to interpret the nanotube results.

I had four conference proceedings published in the summer of 2011 and two more were published this last summer. Oral presentations were given in the fall of 2011 and two more are to be presented this coming fall. I've been trying to keep busy with my research. I had three students work with this last summer and two are continuing with me this academic year.

On the personal side, my daughters are becoming more independent all the time. Alyson is talking about graduate school next year and Cynthia has been getting interviews for jobs with jewelers recently. I've kept up with my trumpet playing and have even noticed some improvement. Overall, I've settled back into life in south-central PA.







2011-2012 was a great year both personally and professionally. In the event of time and space, here are some noteworthy professional developments:

James MacKay

· I continued my responsibilities teaching Organic I and II. For the

fourth year in a row, the O-Chem II class scored well above the national average for the ACS-Organic Exam.

- · Steve Motika and John Tellis ('12) successfully completed their senior theses and have gone on to graduate school for organic chemistry at The University of West Virginia and The University of Pennsylvania respectively. Both will be missed and we wish them well!
- · The MacKay group had our first paper (*J. Org. Chem.*, **2012**, 77, 7768). Congrats to coauthors Zach Landis ('11), Steve Motika, and Maggie Kench ('10).
- · Along with Kneas and Rood, presented two talks at the Biennial Conference on Chemical Education.
- · I have been active in service to the college as a member of the Core Program committee, strategic planning workgroup, and member of the Health Professions Advisory committee.

• This year marks the start of my 6<sup>th</sup> year so I will be going up for tenure in January. There is a good deal of work to do in the meantime, but hopefully at this time next year I will be conveying good news!

Personally, much has happened as well. In March,

Josiah James (JJ) was born so we now have two little ones to terrorize mom and dad. In May, my younger brother got married in Panama. The whole family traveled to Central America to experience a pretty fun Latino wedding. Leah (who at the time was only 18 months old) was a



flower girl and performed her duties beyond



everyone's expectations. Both JJ and Leah did great traveling. We also spent our yearly week in the Outer Banks where I went hang

gliding for the first time (from 2000 feet). It was a pretty sweet experience.

I hope you are all doing well. Come visit if you are in town!!



Dick Papez

This is my third year at E-town College and I'm still the newest member of the Chemistry department. I teach forensic science (lecture and lab), general chemistry lab and organic chemistry lab. Having retired from industrial and

research chemistry, the shift to college life has been delightful.

Forensics courses are those in which I have the least background. However, there are many similarities between analytical chemistry from my past and forensic chemistry that I now teach. The difference is the "bad guys". Much of my former career was to solve technical problems related to processing, formulation, quality, and analysis of research materials. With forensics, a perpetrator is added, but the science is still the same. An infrared spectrum is an infrared spectrum whether it is from a plasticizer used in plastics processing or from cocaine used for.... Now that I have been through

each course twice, I can adjust them based on my previous experiences. A major challenge in forensics is to make the courses interesting to science and non-science majors, the majority of the attendees. It has to be interesting but not watered down. It is very satisfying to see the students becoming involved and showing interest. A highlight for me is creating an intriguing crime scene and making it a challenge for the students to solve.

This past year, I have worked on projects for my former employer performing chemical analysis of products and materials. The staff here has been very supportive of this activity and opportunities have been created to involve students in this research.

In addition, I continue to be the junior varsity coach of the Warwick High School boys' soccer team.

I want to acknowledge the staff here at E-town for the tremendous help and encouragement that I have received. They continue to be very helpful and supportive.





Jeffrey Rood

Hello everyone! I hope this year's newsletter finds you well. I'm beginning my fourth year at Elizabethtown....wow, how time surely flies! This fall, I'm teaching general chemistry once again. I always enjoy this course

in that I'm able to not only interact with our majors, but also with a number of other students from across campus. We decided to use a new textbook this year for the course, so that should provide a refreshing change from a teaching perspective. I'm also teaching advanced inorganic chemistry for the second time. I'm focusing largely organometallic chemistry and how such compounds have great utility in a variety of different fields. I'm hoping to get the students into the primary literature and have class discussions based on some emerging topics in this field.

On the research end of things, I've been lucky to work with a number of great students here at Etown.

The students have gotten the opportunity to present their work at local, regional, and national meetings. For some specific highlights, last year, we published a paper in *Acta Crystallographica* and my research student, Ashley Huttenstine ('12) was an author on the manuscript. I've also recently had a paper accepted in the *Journal of Chemical Education* regarding a solid-state chemistry teaching lab that I've developed from my research.



Kella Rood

Finally, I'm thrilled to report that my wife and I recently welcomed our first child into the world. Kella Rena Rood was born on April 28<sup>th</sup>. It's been an incredible experience and I am definitely one proud father!

In closing, if you are ever around campus, please stop by and say hello!









Charles Schaeffer

Our research in main group organometallic chemistry of silicon and germanium compounds continues. Elaina M. Nellis, 2014, worked during the summer of 2012 and in both semesters of the 2011-2012

academic year. The most recent research manuscript containing Elizabethtown student coauthors (underscored) is: C.H. Yoder, T.M. Agee, A.K. Griffith, C.D. Schaeffer, Jr., M.J. Carroll, A.S. DeToma, A.J. Fleisher, C.J. Gettel, A.L. Rheingold. Use of 73Ge NMR Spectroscopy and X-ray Crystallography for the Study of Electronic Interactions in Substituted Tetrakis(phenyl)-, - (phenoxy)-, and -(thiophenoxy)germanes.

*Organometallics* **2010**, *29*, 582-590 (DOI: 10.1021/om900905c).

Our long-time and ongoing collaboration with Professor Claude Yoder, Charles A. Dana Professor of Chemistry at Franklin and Marshall College, began in Fall of 1966 (for a history, see: http://www.fandm.edu/chemistry/yoder-schaeffer-collaboration).

I continue supervising research students in my role as A.C. Baugher Professor of Chemistry Emeritus and exploring of medium-format digital photography. The Chemistry Student Affiliates distributed a 2012 calendar composed of some of these images of the campus, with proceeds going towards student attendance of the spring national ACS meeting in San Diego, CA.



### Study/Service Abroad

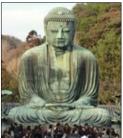
In the Fall of 2011, Nicole Rummel '13 attended Nihon University, Japan, to study Japanese: "Going to Japan was one of the best experiences I have ever had. I am a biochemistry and Japanese major. In



order to fulfill my major requirement for Japanese, I was to study in Japan for at least one semester. This has probably been one of my favorite semesters. Although taking chemistry courses at Etown is exciting, and who wouldn't love to learn about

ortho-, para-, and meta- directors, but going to Japan

to study definitely tops the cake. During my time there I was able to do so many things; like making new friends that I am still in close contact with today. Going abroad while being a science major can be a little discouraging what with all the classes we have to take and time constraints of trying to



graduate on time. However, working my schedule out to be able to go abroad was one of my best choices. It gave me new insight into the world as well as the differences in schooling among other countries and realizing that, actually, Etown isn't that difficult after all. After coming back from Japan I was able to get right back into the swing of things. Although I will never forget my time in Japan, I hope to be able to go back soon."

In the Spring of 2012, Mollie Mares '13 studied



abroad in Dunedin, New Zealand, at the University of Otago. Here is what she had to say about it: "Studying abroad will change your life. Wherever you travel to, you are able to experience a new culture, have new experiences, and

meet new people. Looking back at my time in New Zealand, it was one of the best times of my life so far. I was able to not only step outside of my comfort zone, I was also able to expand my comfort zone. I became more independent and confident. While in New Zealand I was able to travel around the country.

I saw beaches, mountains, rainforests, sand dunes, rivers, lakes, and geysers. The nature of New



Zealand is absolutely beautiful. While I was there I got stuck in traffic because of sheep, went to Rugby games, toured the Cadbury chocolate factory, attended the second longest running capping show, went on a brewery tour, cooked my own food (I learned

how to cook lamb!), and so much more. I also was able to travel to Fiji and Australia while I was there. I am very grateful that I was able to travel to places that I might never see again. The experience allowed me to make friends for a lifetime in places all over the world. If you are even considering studying or traveling abroad, do it. It will be the best decision you ever made."

This summer, Elaina Truax '13 traveled to Ghana, West Africa, as part of a medical ministry team with HCJB Global. The team, comprised of students and



health care professionals from the U.S., Ecuador, and England, traveled to rural villages and conducted health clinics from June 30-July 28.

"Going to Ghana was such a great experience! I learned so

much about health care and using chemistry and medicine to serve others! The best part about the trip was meeting such wonderful people. We had a great medical team and the Ghanaian people are very hospitable. They are very strong, both in body and in spirit, and easily laugh and smile. Medically, we saw a lot of malaria, "waist pain", tumors, epilepsy, high blood pressure, etc. I highly recommend taking a trip

abroad, especially to a third world country. As a pre-med student, I gained invaluable knowledge about medicine and the challenges of healthcare in other countries. It was also fun



learning about another culture and enjoying some of the many adventures Ghana has to offer like a forest canopy walk and eating caterpillars."





### STUDENT NEWS



#### 2012 Graduates

Syeda F. Ahmad
Pennsylvania State University
College of Medicine

Steven M. Boyer
Graduate School
State University of New York
Binghamton

Timothy J. Goldkamp
Chemical Solutions, Ltd.

Corey F. Green
W. R. Grace

Ashley L. Huttenstine ELCO High School

Stephen E. Motika
Graduate School
University of West Virginia

Ayusa Sínha

Sarah A. Strohecker

John C. Tellis
Graduate School
University of Pennsylvania

### Students recognized by the Department of Chemistry & Biochemistry for their educational accomplishments:



Amy M. Wagner '15 First Year Chemistry Award



**Dean G. Hummert** '13 Inorganic Chemistry Award



Elizabeth J. Crow '14 POLYED Organic Chemistry



**Dean G. Hummert '13**Analytical Chemistry Award



John C. Tellis '12 Biochemistry Award



Syeda F. Ahmad '12 ACS Outstanding Senior Award



Lauren A. Eltringham '14 ACS Student Affiliate Award



John C. Tellis '12 A.C. Baugher Award



Shantel M. Angstadt '14 Musser Pre-Med Scholarship



Nicole E. DeMaris '13
Musser Pre-Med Scholarship



John C. Tellis '12
ΓΣΕ De-Lap-Holcomb Scholarship

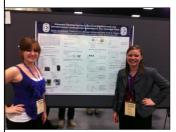
Not Pictured:

Kaitlin M. Brubaker '15
First Year Chemistry
Award



### Student Presentations at Local, Regional and National Meetings\*

Adaptable Sensing Approach Based on Rigidochromic and Solvatochromic Luminophores Embedded in Thin Hydrogel Films by Elaina Truax, Sarah Strohecker, Morgan McKenney, and Dr. Kristi Kneas, presented at ACS and SCAD.



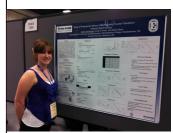
Sarah Strohecker and Flaina Truax

Synthesis and Characterization of Transitional Metal Complexes for Use in Luminescence-Based Sensors by Elizabeth Costello, Sarah Strohecker, Justin Warner with Dr. Kristi Kneas, presented at UMBC, ACS, SCAD.



Elizabeth Costello (r)

Study of Prepolymer Mixture Stability Using Fourier-Transform Infared Spectroscopy by Sarah Strohecker, Dr. Kristi Kneas, and David Obetz presented at UMBC, ISCC, and ACS.



Sarah Strohecker

Development of an Allenolate Variant of the Rauhut Currier Reaction by Stephen Motika and Dr. James MacKay, presented at UMBC and SCAD.



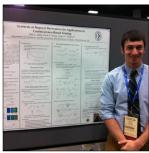
Stephen Motika (I)

Studies of Intramolecular Cyclization of Isocyanates Activated by Nitrogen Nucleophilic Catalysts by Lydia Whipple and Dr. James MacKay, presented at UMBC, ACS, and SCAD.



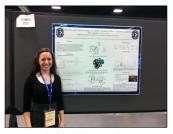
Dr. James MacKay and Lydia Whipple

Synthesis of Dapoxyl Derivatives for Applications in Luminescence -Based Sensing by John Tellis, Dr. James MacKay, and Dr. Kristi Kneas presented at UMBC, ACS, and SCAD.



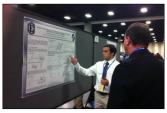
John Tellis

Synthesis and Characterization of Transition Metal Carbene Complexes by Ashley Huttenstine and Dr. Jeffrey Rood presented at UMBC and ACS.



Ashley Huttenstine

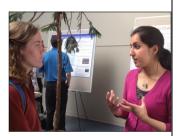
Preparation of Organomagnesium Complexes as Potential Catalysts for Ring Opening Polymerization by Timothy Goldkamp and Dr. Jeffrey Rood, presented at UMBC, ACS, and SCAD.



Tim Goldkamp



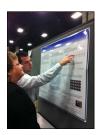
Synthesis of Schiff Base Magnesium Complexes for Ring Opening Polymerization Reactions by Ayusa Sinha and Dr. Jeffrey Rood presented at SCAD. Towards the Development of an Economical and Effective Means to Measure Salivary Cortisol as a Clinical Indicator of Stress by Syeda Ahmad and Dr. Tom Hagan, presented at SCAD.



Syeda Ahmad (r) and Libby Crow (l)

Structures and Properties of Magnesium Complexes Utilizing Schiff-Base Ligands by Zachery Schmidt and Dr. Jeffrey Rood, presented at SCAD.

Metal Organic Frameworks Constructed with Phosphinic Acid Ligands by Steven Boyer and Dr. Jeffrey Rood presented at UMBC, ACS, ISCC, and SCAD.



Steven Boyer



Research Students and Faculty Mentors

\*UMBC-University of Maryland Baltimore County Undergraduate Research Poster Session; SCAD-Scholarship and Creative Arts Day, Elizabethtown College; ISCC-Intercollegiate Student Chemists' Convention; ACS-American Chemical Society Meeting



### **Summer Research**

*Kyle Farkas*, a junior chemistry education major, studied the structure and reactivity of salicylaldiminato magnesium complexes with Dr. Jeffrey Rood.

**Daniel Forster**, a junior biochemistry major, interned at Bristol-Myers Squibb Pharmaceutical Co., New Brunswick, NJ, in the Drug Science and Product Technology department. He studied the dissolution and stability of certain pill formulations and interactions in given mediums.

**April Hang,** a senior biochemistry major, spent her summer working with Dr. Gary Hoffman studying the conformations of alanine.

*Ashley Landis*, a sophomore biochemistry major, was an intern at Teleflex, Inc., a medical supplies company. She was responsible for running quality tests and writing lab reports.

*Elaina Nellis*, a junior biochemistry major, spent the summer researching the synthesis and characterization of germanium (IV)-phosphorus complexes with Dr. Charles Schaeffer.

*Katie Olsen*, a junior biochemistry major, worked as a lab technician in the Pharmaceutical Biochemistry department at Lancaster Labs. She prepared solutions and followed-up with data processing.

*Khin Aye San*, a senior biochemistry major, studied the statistics of polymer chains with Dr. Gary Hoffman.

**Zachery Schmidt,** a senior biochemistry major, worked with Dr. Jeffrey Rood researching structures and properties of magnesium complexes utilizing Schiff base ligands. The goal was to form crystals and obtain crystal structures, then study the data to understand their structure.

*Elaina Truax*, a senior biochemistry major, traveled to Ghana, West Africa, as part of a medical ministry team with HCJB Global. The team, comprised of students and health care professionals from America, Ecuador and England, traveled to rural villages and conducted health clinics. The experience was an education in health care, African culture, and using chemistry and medicine to help others.

**Amy Wagner**, a sophomore biochemistry major, researched synthesis and characterization of luminescent transition metal complexes for application in hydrogel-supported sensors with Dr. Kristi Kneas.

*Lydia Whipple*, a senior biochemistry major, did research towards the synthesis of nitrogen heterocycles using nucleophilic catalysis in the lab of Dr. James MacKay.















## STUDENT AFFILLATES

We had another great year in Student Affiliates of the American Chemical Society aka Chem Club. We continued most of our traditional events: Into the Streets, Homecoming, Relay for Life and the end of the year picnic. A very popular new event was the trip to Shady Maple Buffet for a delicious, all you can eat brunch with over 25 students, faculty, and family members attending. We hope to make this a tradition each Fall semester as a Chemistry Thanksgiving gathering. The format for Into the Streets changed a bit this year and the experiments were more hands on allowing the children to explore for themselves density differences, gas evolution, and properties of bubbles. On that same day eight attended the annual research Chemistry majors symposium at the University of Maryland Baltimore County with seven winning awards for their poster presentations. In March 10 students traveled to San Diego for the National ACS meeting and had a wonderful experience presenting their research. A trip to the San Diego Zoo was a must. Relay for Life was a successful event with Chem Club selling periodic table cupcakes and chances in the cornhole tournament. The end of the year picnic had a wonderful turnout as students from each class and the

entire faculty attended. The culmination of the 2011-2012 year was being presented with the Commendable Chapter Award at the ACS meeting for the third year in a row.

The new cabinet for the 2012-2013 year consists of Lydia Whipple, president; Dean Hummert, vice president; Amy Wagner, secretary; Mollie Mares, Treasurer; and Elaina Truax as the Marketing Chair. One of our goals for the year is to increase underclass members' participation in the club. We appear to have a good start with 37 people attending our first meeting. We will participate in Into the Streets and Relay for Life again this year. Professional development opportunities will involve inviting speakers from graduate schools, career services and attending conferences. The main fundraisers for the club are selling lab supplies at the beginning of each semester and selling calendars at Homecoming, made up of the beautiful pictures of campus taken by Dr. Charles Schaeffer, Jr. We also plan on giving students the opportunity to purchase lab coats to complete their NErDs image. If you have any questions or suggestions concerning the Chemistry please Club. feel free email: chemclub@etown.edu.











### From the E-Mailbag

I recently accepted a position with the Warrell Corporation as a second shift quality assurance supervisor. Warrell makes a variety of candies. They have a plant in Camp Hill and in York. I am at the Camp Hill plant, but Jamie Hornock Sennett '08, is the quality assurance supervisor for the classic caramel plant in York. We had a good laugh over the fact that we both ended up in the same industry and now the same company.

**Shannon Wallen '08** 

My second first-author paper from UNC was accepted by Nature Chemical Biology. I've been awarded a Damon Runyon Cancer Research Foundation Postdoctoral Fellowship. I'm the first Vanderbilt postdoc to win one. I'm still researching NMR fragment screening and crystallography on novel cancer targets. Also I've been training first-year rotation students, two so far this year.

Mary Harner Carroll '06

Help us keep our records
up-to-date. If you have been
awarded grants, scholarships,
awards,
OR
changed jobs, names,
addresses, or your

email address, please let us know in the Chemistry & Biochemistry Department.

I am the co-chair of National Chemistry Week (NCW) for 2012 (and the 25th anniversary of NCW!), so I hope the Chemistry Club will be celebrating NCW October 21-27. NCW Home page: http://www.acs.org/ncw. NCW "Celebrating Chemistry" (look for a few articles written by me): http://portal.acs.org/ portal/PublicWebSite/education/ outreach/new/CNBP 030513.

**Michael McGinnis '92** 

I am applying to grad schools. I've been accepted at University of Minnesota (yay!) I'm waiting to hear from two The Hershey Company others. has some exciting research with antioxidants and human health that I find VERY interesting. The nice thing about Hershey is that they would let me do part time grad school. I must say that I am proud to have come from the Etown chemistry program, it has definitely prepared me well for everything I do here with my job. My bosses are always surprised, which is a good thing!

Katie Diamond '11



Musser Ducks-Spring 2012

Things are going well for Katie and me. Our big news currently is that we are building a house in Mount Joy, so you'll be seeing me around for awhile.

Nick Wetzel '10

Be sure to check the
Etown Chemistry
Facebook page
for the latest
department updates.

As a department our commitment has always been to provide the highest quality undergraduate chemistry and biochemistry education possible. Our graduates distinguish themselves in a wide range of career fields from industry to education to medicine to law.

Thanks to the generosity of foundations, alumni and friends, we are able to offer our students:

- Research opportunities
- State-of-the-art instrumentation
- Opportunities to participate in local, regional, and national meetings
- Well-equipped labs

If you would like to invest in maintaining the strength of our students' education, please contact the Chemistry department at 717-361-1126 or the Elizabethtown College Development Office at 717-361-1419. Thank you.



DEPARTMENT OF CHEMISTRY & BIOCHEMISTRY ONE ALPHA DRIVE ELIZABETHTOWN, PA 17022-2298

### First Place Recipients



Pictured above are the 2011 Elizabethtown College participants at the 14th Annual University of Maryland Baltimore County Undergraduate Research Symposium in the Chemical and Biological Sciences. They are: Ashley Huttenstine '12, Sarah Strohecker '12, Tim Goldkamp '12, Lydia Whipple '13, Stephen Motika '12, Elizabeth Costello '12, and Steven Boyer '12. (Not pictured: John Tellis '12) Four of these students placed in first place and three placed in second.

### A Special Thank You

To the faculty, students and alumni who contributed to this newsletter.

### **Chemistry and Biochemistry Faculty and Staff:**

Dr. Kristi A. Kneas, Chair

Mr. W. Michael Bierbower

Dr. Thomas Hagan

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