

Department of Chemistry & Biochemistry Newsletter



Elizabethtown College

From the Chair



Jeff Rood

Welcome to the annual newsletter from the Department of Chemistry and Biochemistry at Elizabethtown College! As you likely can tell from the cover page, the Department has undergone a change at the Chair position. We are very grateful to Gary Hoffman for his dedication and leadership over the past three years. He has left the department in a position to continue to offer great opportunities for our students. There are many exciting things happening in the department and I'd like to take the opportunity to highlight a few things from the past year:

- Eleven students were involved in research during the academic year for credit. Two students presented work at the ISCC in April at Gettysburg College and one student successfully defended her honor thesis. Nine students stayed on campus during the summer to carry out research with the faculty. The college hosted the Landmark Conference Summer Research Meeting for the first time and many students presented at this event. A group of faculty and students also attended the Disappearing Boundaries Summer Research meeting at Lebanon Valley College. Additionally, we had one student participate in an REU at the University of Puerto Rico-Río Piedras.
- Four students were inducted into the Gamma Sigma Epsilon Chemistry Honor Society and we honored 7 students at our annual awards banquet for outstanding work in the department.
- During the spring semester, two of our majors studied abroad. One student went to Germany and the other to Spain.
- Through generous donor support, we continue to grow the capacity to support student research and upgrade our instrumentation. Recently we have acquired new ICP-OES and LC/MS instruments and are excited to put them to good use in the teaching and research settings.
- We are in discussion with Facilities Management about the long-awaited updates and renovations to Musser Hall. Preliminary discussions are focused on the first-floor hallway and the organic chemistry lab. More news to follow!

It's exciting to look back and see all that the students accomplished over the past year. We also enjoy hearing updates and success stories from our alumni. Please continue to keep us posted about the exciting things that you are doing.

In my own teaching, the past year was productive and fun. I had some new experiences in the classroom. I taught in our First Year Seminar program for the first time. My course was *titled Energy: Past, Present, and Future*. I think the students enjoyed the class and I am offering it again this semester as part of the Honors Program. In general chemistry, I tried out a "flipped classroom" approach for the first time. In this model, a lot of problem solving is done in the classroom itself. This helped me work with students on the spot. Overall, I think it was a success as I saw some of the best performances in general chemistry that I have seen in a while. I plan to use this approach again this year and further refine the changes I've made. We'll see how it goes.

On the research front, our collaborative work on luminescent metal-organic frameworks with Dr. Kristi Kneas continues. I was fortunate to work on the project with Lucas Stehle and Kaitlyn Mercando over the summer with funding through SCARP. Sarah Moyer has returned from her study abroad in Germany and will pick up this research for her senior thesis. Paul Andonie will also join the group this year and revive some organomagnesium research that we have worked on in the past. It's shaping up to be a busy year in the lab.

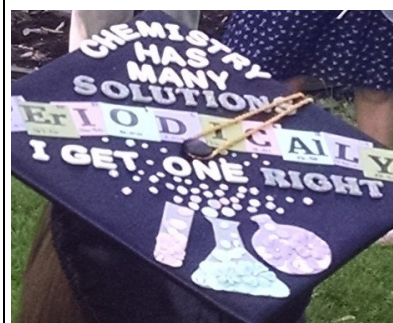
On the home front, things are going well. Our daughters keep Liz and I busy. Kella is now 7 and in 2nd grade and Kacey will turn 3 in December. It's a lot of fun to watch them grow. I'm a lucky guy!

To wrap up, it's always great to hear from you. I hope you keep in touch and even drop by the department from time to time!

Fall 2019
Volume 16, Issue 1

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Commencement 2019

2019 Stambaugh Award Winner



Amy J. Thompson, M.S. was presented with the 2019 O. F. Stambaugh Chemistry Alumni Award by Dr. Tom Hagan and Biochem major, Christina Schnee; her former student. Mrs. Thompson received the award during Homecoming ceremonies on Saturday, October 19, 2019, in the Masters Center.

The recipient of the **O. F. Stambaugh Chemistry Alumni Award** for 2019 is **Amy Thompson**. Amy received BS degrees in ACS Chemistry, Chemistry Education and Physics Education from Elizabethtown College in 1991 and went on to earn an MS in 1997 from Penn State in Teaching and Curriculum. During her years at the college she was editor of the yearbook, served as a class officer, worked on the freshmen orientation staff, interned at Hershey Foods and Armstrong Industries and performed research with Dr. Charles Schaeffer. After graduation she began teaching chemistry at Hempfield High School in Lancaster County, where she remains today.

During her 28 years of teaching she has taught over 4500 students in classes ranging from general science to AP Chemistry. In addition to her role as a classroom teacher she has been the yearbook advisor for the past 25 years. Amy also serves as an after-school tutor, homebound instructor and cooperating teacher for seniors from Millersville University and Elizabethtown College. During her career Amy has been recognized as the Lancaster County Teacher of the week, was awarded the ACS Whalen Memorial Award for outstanding high school chemistry teacher and received the Rose E. Kelly Award for her student mentorship from the University of Scranton. She routinely participates at the Millersville Women in Mathematics and Science Symposium which encourages young women to explore fields in the areas of math and science. Amy lives in Lancaster County with her husband Jeffrey (Elizabethtown College Class of 1991) and has two grown children, Sarah and Cameron.

Amy is an excellent example of our motto "Educate for Service" through her obvious love of teaching and her dedication to both her students and education in general. We are extremely proud to present the O.F. Stambaugh Award to Amy Thompson.



ΓΣΕ

On Thursday, February 28, 2019, the annual induction ceremony for new members of the Rho Eta chapter of Gamma Sigma Epsilon, the national chemistry honor society, took place. Only students with a grade point average of 3.3 or higher in chemistry are invited to join.

New members: **Paul Andonie** (shown far right), **Kaitlyn Jacoby**, **Sara Luckenbill**, **Sarah Moyer** (all three studying abroad at time of ceremony)

Current members shown left to right: **Haley Young**, **Steven Reehl**, **Aubrey Maryniak**, The faculty advisor is Dr. Jeff Rood. We congratulate these outstanding students.

ΓΣΕ 2019





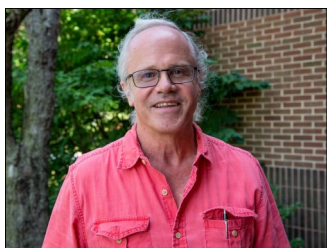
FACULTY NEWS



Tom Hagan

Oh my, it is already past the first day of fall. We are certainly in the throes of the semester! Recall from last year I was getting ready to team teach a course with a colleague in English which combined literature and (bio) chemistry centered around disease and disability. It was a great experience and I believe the students got their money's worth! The capstone project entailed the students writing their own piece of literature-fiction, nonfiction, or memoir- which integrated some of the science associated with the medical issue they were researching. Many of the final works the students submitted were innovative, humbling, and truly a pleasure to read. We will be offering the course again in the spring. On the research front, one of the rising sophomores, Christina Schnee, worked with me this past summer on the synthesis of various porphyrins using our microwave reactors in the organic laboratory. It was a learning experience for both of us since neither of us had explored this type of synthesis using microwave-based methodologies. Our results from the summer have laid the ground work for future refinements as we develop various macrocycles which can be used in future cell

studies. It was a productive year in getting the students out of Musser and over to our house. Students took time out at the end of both semesters to relax, eat lots of food, and enjoy each other's friendship. One of our graduating seniors, Aubrey Maryniak, was even kind enough to provide the entertainment: juggling fire in the backyard. We also hosted the annual graduation breakfast at our house. It is always a bittersweet morning: we get to share friendship and food one last time with our seniors and their families, but alas, they are moving on and spreading their wings! Speaking of spreading wings: I was able to realize a life-long dream of mine to see the Tour de France in person this past summer. Standing outside a small village in the foothills of the French Alps, all 160 racers passed by in a span of a couple of minutes. It was a rush both figuratively and literally. I saw it as a metaphor for the typical 4 year period we get to work with our students. And though we ask our graduates to spread their wings, we do love it when they come back for a visit, or send updates. So keep those updates coming, or better yet, stop by and say hi!



Gary Hoffman

Big changes in my life this past year! I stepped down as chair effective on July 1. I traded offices with Jeff Rood, who is the new chair. I will just be one of the faculty members now. In addition, I have begun a phased retirement. I will be working half time (and getting half pay) for the next three years. I'm looking forward to the next stage of my career.

I continue to teach the physical chemistry classes and I taught a section of general chemistry last fall. The physical chemistry sequence had some major changes this past year. The first semester covers quantum chemistry and thermodynamics, both in a bit less detail than previously. The second semester handles those missing details and also covers statistical mechanics and kinetics. I had to generate a new set of notes and devise a new set of labs for this rearrangement. In a new twist, I was asked to teach a general physics class last spring. The Engineering Department was having trouble finding an adjunct to teach the class and ended up approaching me (they were quite desperate!). I taught a class that was entirely Biology majors. Interesting.

I finished my paper on the Dunham coefficients and submitted it to the Journal of Computational Physics. Unfortunately, the editor felt this journal did not provide the best audience for this manuscript. I will have to keep shopping. I have pulled out some notes of projects that I had ideas on. I have chosen several that should be challenging and fun. I hope to have extra time this year – and for years to come – so that I hope to make progress on them. If I can find a student or two interested in theoretical chemistry, perhaps I can get some help. And I've always wanted to write a textbook. Maybe I'll have some time to do so in the near future.

There are a lot of changes on the personal front as well! Last December, my step-daughter Emily got married. A nice wedding in Lancaster. In May, my son Carlos got married. We traveled to Tulum, Mexico for that. Despite the sargassum seaweed on the shore, we had a wonderful time. And, in October, my daughter Alyson will be married in North Carolina. Three weddings in 10 months! In addition, Alyson successfully defended her PhD thesis at Duke last April. I continue to play trumpet. Right now (early September as I write this), we are preparing a concert with the "Cirque du Symphony". Lots of challenging trumpet parts. Should be fun! Susie and I are enjoying life and seeing what the future has to offer.

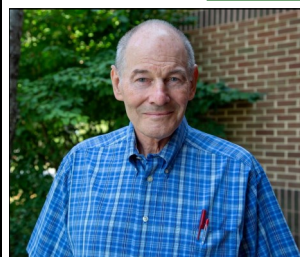

James MacKay

Hello Alumni! I can't believe a year has gone by since I've written a newsletter update! Organic chemistry is thriving. On the teaching end of things, I've been doing the same old same old. Organic I and II continue to be my 'bread and butter' courses. I've been teaching I-lab in the fall.

Students are engaging with the courses and I'm thrilled by that. As I've been doing for a few years now, one of my main goals in the teaching lab is to engage students in authentic research. As a result, students in Organic II and I-lab have been involved in my research project. (see below)

I have the pleasure of being advisor for the current sophomore cohort and it is such an honor. They are a great bunch of students that I have very high hopes for. Look out for awesome outcomes in the next couple of years! Most of them have already started research.

Regarding my research, I'm now in the third year of funding from NSF on my collaborative project focused on RNA recognition. This year, we published a paper in Chemistry: A European Journal (which was a cover article!), and we just had another manuscript accepted by the Journal of Organic Chemistry this month. Keep your eyes on the Department Research Website for links to the papers. If you can't access them, let me know and I'll be happy to share them with you! I also had the privilege of presenting my research at a Gordon Research Conference in Rhode Island this summer. It was an awesome experience to be around so many nucleic acids experts and share my chemistry with them. The spring will bring the


Dick Papez

Hi, my name is Dick Papez and I serve as an instructor here at E-town College. I teach the forensic science courses (lecture and lab), general chemistry labs, organic chemistry labs and help with some of the chemical instrumentation. With two years of retirement in between, I have enjoyed the change from thirty-five years of industrial/research chemistry to the

college scene.

I am married to Dottie. We have two sons, four granddaughters (ages 13-19) and a 4-year-old grandson. One of my favorite activities is teasing the granddaughters.

The forensics courses are most exciting for me due to the ever changing breakthroughs in crime related science. Also the case studies do not stop coming. We do not run out of crime. They say there are only two things that are certain, death and taxes. I say there is one more, that there is always crime. In the couple years we have studied two, twenty and twenty-five year old cases, the murder of Christy Mirack, a local school teacher and the death of Princess Diana, accident or not? Upon my transition from industry to academia I have found many similarities between analytical chemistry in my past life and forensic chemistry that I now teach. The big difference is the devious plot that often goes with crime solving.

The on-line forensic summer course has now run for seven years with reasonable attendance each summer. I try to keep it fresh and different from the classroom course if for no other reason than it takes place in the summer when I can manage

ACS to Philly so if you are going to the conference, be sure to look us up.

This past spring brought the graduation of my research student Aubrey Maryniak. Aubrey did some impressive synthetic work here and I hope to be able to publish some of it soon. She just started a research position at Johns Hopkins. This past summer, I had three SCARP students, all of whom are continuing their work this semester: Emily Kagarise ('19), Brandon Tessier ('21), and John Talbott ('22). These guys are really engaged in the project and are so much fun.

Personally, life continues to be busy but good. Leah just turned 9, JJ is 7, and Kendon is 4 (oh and Kai is 10). Jana and I (but mostly Jana) are homeschooling them and that has been a great challenge but super rewarding. This fall, I'm helping sub for their weekly homeschool community so at 9am, I 'teach' geography, grammar, history, math, and science to 4-6 year olds, and from there I head to the college to teach 19-20 year olds...it's interesting to say the least...talk about a 'unique' challenge!

Unfortunately, I won't be around for Homecoming this year as I'll be taking a group of students down to UMBC for a conference and poster session. I'm bummed that I won't be able to see those of you that are here. I'm sure that won't deter you from visiting, but I do hope that some of you will take the opportunity to stop by Musser some other time. It is always such joy to catch up with former students and I mean that! No appointment necessary.



much of it from my backyard with a cool lemonade nearby. The high point for me is the Forensics Lab in the spring. Working the students through the cases and the science, watching them run the analyses and wrestle with the myriad of conflicting results is very inspiring.

For three summers, I have had the opportunity to return to active research following up on ideas, many of which were started in my previous career. Some of these were completed then but many were not due to more pressing duties. The research led to an active role with a total of seven students over these summers in the SCARP program. Most of that work involved polymer research.

In previous newsletters I have noted that playing/coaching soccer is my favorite out-of-school activity. Although I grew up with baseball, football and basketball, when my sons started playing organized sports they needed a soccer coach. I volunteered and enjoyed the sport so much that I became a coach, referee and active player. Soccer is constantly moving which for me keeps it exciting. I compare it to molecules in a container, always in motion. I have been in an over-30 league for many years and became the oldest member in the league before I recently retired from the sport. For the last five years, both my sons and I were on the same team. The one is the goalkeeper, the other plays up front and scores the goals and I would just run around in the middle of the pitch and have fun. My wife and I still go to watch them play just as we did years ago when they were in high school.

This is my tenth year at the College and as always, I want to thank the staff here at E-town for the tremendous help and encouragement that I have received. They have always been very supportive.

**Lauren Toote**

Hi Everyone! This past year has been one of continued growth for me. I had the opportunity to teach general chemistry for the first time, in addition to lab methods and instrumental analysis, and really enjoyed the challenge. Additionally, I was elected to my first position in faculty governance as part of a campus council. This position has allowed me to meet more people around campus and learn more about how the college functions. In research, I submitted a couple of grant proposals that I hope to hear back from soon! So my second year was a great year of trying new things!

This summer, I had three great research students! Michael Perzel ('20) and Rachel Molino ('21) made excellent progress on the development of a lateral flow assay for the detection of lead(II) in drinking water. Alex Russo ('22), who was co-mentored by Dr. Mesa-Cruz in the biology department, worked on the development of an immunoassay for detection of bear leptin. This has been

an exciting project and I look forward to working on more interdisciplinary projects in the future! Furthermore, I was able to attend a couple regional conferences this summer with my research students and it was exciting to network with other professors and watch the students grow in confidence as scientists as they presented their work.

At home, Celtson and I have loved living in Mount Joy and getting to know our neighbors. For fun, we have been playing in local volleyball leagues together. We also have enjoyed getting involved in our church where Celtson is part of the worship team and I serve with the kids ministry. This summer we took a 1st anniversary trip to Italy, which was amazing! We loved learning history, eating pasta and seeing the beautiful scenery. I hope you all are doing well! Please stay in touch!

**Charles Schaeffer**

My role as A.C. Baugher Professor of Chemistry Emeritus continues. Our research involves the preparation and characterization of main group organometallic compounds of silicon, germanium, and tin compounds; NMR spectroscopy continues to play a vital role in the characterization. Dr. Jeff Rood and I supervised Jessica Pigga '16 during both semesters of the 2015-2016 academic year. Jessica's work and oral presentation

on the synthesis and characterization of novel organogermanium compounds earned first prize in the inorganic division at the 80th annual convention of the Intercollegiate Chemists (ISC) on April 16, 2016. The ISC is the oldest continuous meeting of its kind in the United States; E'town hosted the event on Saturday, April 7, 2018. The most recent research manuscript containing former 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). The most recent collaborative presentation with Dr. Rood and Elizabethtown students (underscored) is: (1) J. Pigga, J.A. Rood, C.D. Schaeffer, Jr., "Germanium Coordination Complexes: Synthetic Development and Structural Characterization," oral presentation, 80th Annual Convention of the Intercollegiate Student Chemists, Ursinus College, Saturday, April 16, 2016; First Prize, Inorganic Division. I received recognition as a fifty-year member of the American Chemical Society (*Chem. Eng. News* 2019, 97(11), 43). Our long-time and ongoing research collaboration with Professor Claude H. Yoder, Charles A. Dana Professor of Chemistry Emeritus at Franklin and Marshall College, began in Fall of 1966 (see: <https://www.fandm.edu/chemistry/chemistry-faculty-research>). I continue to explore aspects of medium-format digital photography. The chemistry student affiliate chapter distributes a calendar composed of some of these campus images, with proceeds supporting various student affiliate activities.

**Kristi Kneas**

Greetings, alumni and friends! It has been another year of wonderful news from you—new jobs, graduate and professional program updates, weddings, babies, awards, and accolades. Please keep the updates coming; they bring us such joy! I've signed on for a second term in my role as Dean for Academic Affairs and Faculty Development, and I'm enjoying a sense of renewed energy and enthusiasm that President McCormick has ushered in to Alpha Hall and the College. Speaking of renewal—I'm back in the classroom teaching introductory chemistry this fall, and I'm enjoying it immensely. It is hard to believe that this is my 20th year of College teaching (please don't do the math), and I marvel at how much things have changed—including my own classroom approaches. On the scholarly front, I was invited to present on the use of student feedback to improve teaching effectiveness at a conference last summer, and I continue to engage as I am able in support of Dr. Rood's work with research students on the development of luminescent metal-organic frameworks. This past summer I also spent some quality time with the spectrofluorimeter collecting measurements for the dapoxyl sulfonic acid-derivatives project (a collaboration with Dr. MacKay), but as is often the case with research, there is still much to do. On the home front, Daniel continues with Pearson, and Benjamin and Garrison are in first and seventh grade, respectively. Garrison has launched his own YouTube channel (VideoGameReview 16), and Benjamin has recently warmed my heart with his great interest in the Periodic Table. We continue to enjoy camping and traveling as a family, and the boys especially enjoy visiting large cities. If you have recommendations, please let us know! And please do come to see us when you can.



STUDENT NEWS



2019 Graduates

Emily Kagarise

Completing one more semester at E-town majoring in Forensic Chemistry with dual minor in English Professional Writing & German

Steven Reehl

Attending graduate school at the Geisinger Commonwealth School of Medicine, Scranton

Ryan Thomas

Accepted a position at the Steelton-Highspire High School teaching physical science, chemistry, physics & forensic science

Haley Young

Attending graduate school at Penn State with an emphasis of research in materials chemistry

Aubrey Maryniak

Working as a Research Technician in the Holland Lab at Johns Hopkins University, Baltimore, MD

Congratulations Class of 2019!

Students Recognized for their Educational Accomplishments



David Krebs '21

ACS Student Affiliates Award



Kaitlyn Jacoby '20

Analytical Chemistry Award
Inorganic Chemistry Award



Aubrey Maryniak '19

ΓΣΕ Sontag Award
Undergraduate Award in Organic Chemistry



Steven Reehl '19

Biochemistry Award
ΓΣΕ De-Lap-Holcomb Scholarship



John Talbott '22

CRC Freshman Chemistry Achievement Award



Brandon Tessier '21

Sophomore Organic Chemistry Achievement Award



Haley Young '19

A.C. Baugher Chemistry Award
SEPSACS Outstanding Senior Chemistry Award

Congrats to all our honorees!



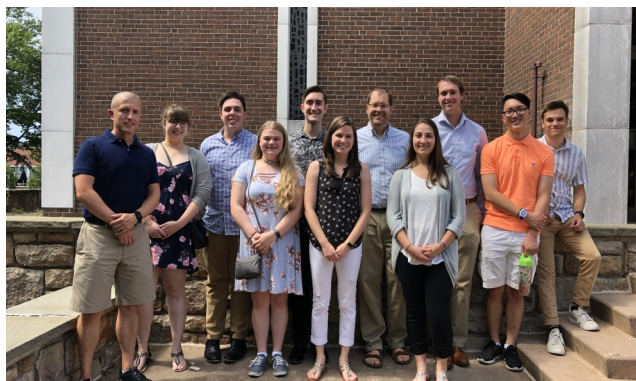
2019 Summer Research & Internships

RESEARCH AT E-TOWN (SCARP):

Kaitlyn Mercado and **Lucas Stehle**, both sophomore chemistry majors, worked with Dr. Kneas and Dr. Rood on research entitled “Luminescent Metal-Organic Frameworks.”

Emily Kagarise, a senior chemistry forensics major, worked with Dr. MacKay doing research entitled “Computational and Synthetic Approach to the Design of Imidazole Based PNA Nucleobases for the Recognition of AU Watson-Crick Base Pairs.”

Senior biochemistry major, **Michael Perzel**, and junior chemistry major, **Rachel Molino**, worked with Dr. Toote on “Detection of Heavy Metals by Colorimetric Polymer Nanoparticles.”



2019 SCARP Students

Brandon Tessier, a junior biochemistry major, worked with Dr. MacKay doing research entitled “Optimization of a One-pot Allylation and Claisen Rearrangement of Acetaminophen by Applying Microwave Radiation.”

Sophomore **Christina Schnee**, a biochemistry major, worked with Dr. Hagan on “Synthesis of Substituted Porphyrins and their Incorporation into Lamellar Vesicles.”

John Talbott, a sophomore chemistry major, and Aubrey Maryniak, a senior biochemistry major worked with Dr. MacKay and presented research entitled “Synthesis of an Amide-based Extended Heterocyclic System Capable of Hydrogen Bonding to Both the Adenine and Uracil in dsRNA for RNA Recognition using PNA.”

Biochemistry major and sophomore, **Alexander Russo**, engaged in research with Dr. Mesa Cruz in Biology and Dr. Toote on “Development of an Immunoassay to Detect Leptin, a Hormone Associated to Fat Metabolism, in American Black Bears.”

INTERNSHIPS:

Grace Childs — Participated in a summer internship with the Vermont State Department of Agriculture. There she was given the opportunity to intern in their environmental labs working mainly with surface waters like lakes and rivers. Grace reported she “...had a lot of fun learning how labs operate as well as learning about water quality measures in my home state.”

Memories ‘18-’19



Student Presentations at Local, Regional and National Meetings

2018-2019—A large number of our chemistry and biochemistry majors participated in research over the course of this past school year. Some presented the results of their work at several venues including the Scholarship and Creative Arts Day event at Elizabethtown College, the local section meeting of SEPSACS, the Landmark Summer Research Symposium held this year at Elizabethtown College and the Disappearing Boundaries Research Meeting at LVC. Student researchers were: Emily Kagarise '19, Aubrey Maryniak '19, Kaitlyn Mercado '22, Rachel Molino '21, Michael Perzel '20, Steven Reehl '19, Alexander Russo '22, Christina Schnee '22, Lucas Stehle '22, John Talbott '22, Brandon Tessier '21 and Haley Young '19.

Special Note: While studying abroad, senior *Kaitlyn Jacoby* participated in a Research Experience for Undergraduates (REU) put together and funded by the National Science Foundation in San Juan, Puerto Rico at the University of Puerto Rico-Rio Piedras this past summer. She did a research project with Dr. Zhongfang Chen that was entitled "Computational Investigations of Zeolite Templated Carbons for Water Purification."





Career Exploration Event & Study Abroad

Career Exploration Event at E-town

Earlier this year on March 20th, the Chemistry department hosted a Career Exploration Event for our students during which they were able to meet and sit down with alumni in order to learn more about available career options for themselves. The students met with professionals involved in a diverse range of careers built upon their chemistry or biochemistry degree from Elizabethtown College. Alumni were not only able to share their career and school experiences with the students but were also available for Q&A sessions afterwards. Our department would like to sincerely thank all of the alumni who were involved with this event including: Laura Caulfield, Libby Hemler, Carly Henry, Sarah Kase, Zach Landis, Paul Leicht, John Stephens and Amy Thompson.



Study Abroad: Kaitlyn Jacoby

This past spring senior ACS-Chemistry major, Kaitlyn Jacoby, spent the semester studying abroad in Spain! She spent her time studying in Granada, a city in southern Spain, and reported that she was mostly studying Spanish and the culture of Spain while there in order to complete her Spanish minor. However, over the summer months she also traveled to San Juan, Puerto Rico to participate in a Research Experience for Undergraduates funded by the National Science Foundation. (see more info on page 8)



Study Abroad: Sarah Moyer

Also, senior Sarah Moyer, a Biochemistry major, spent her spring semester studying abroad in Germany! She actually began her journey in Vienna spending time learning the German language and then continued on to Marburg, Germany to engage in her Chemistry studies. While abroad she also traveled to Budapest, Copenhagen, Prague & Salzburg!





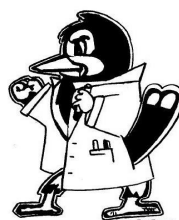
STUDENT AFFILIATES

Over the past year, the Chemistry Club has participated in many activities both on and off campus. In regard to research, several students had the opportunity to present their findings at the Scholarship and Creative Arts Day (SCAD), hosted by Elizabethtown College. This event allowed students to share their work with their peers and professors in the form of a poster presentation. Similarly, students also had the chance to present their research at the Intercollegiate Student Chemists Convention (ISCC), hosted by Gettysburg College. The ISCC is an annual convention held to celebrate undergraduate chemistry research and allow the participants to present their work and interact with undergraduates from other universities. Most recently, students who participated in the Summer Scholarship, Creative Arts and Research Program (SCARP) presented their work at the 11th Annual Landmark Summer Research Symposium, hosted by Elizabethtown College. The Landmark Symposium is also a celebration of undergraduate research but, across all areas, not just chemistry. Students shared their work by either a poster or oral presentation. This event was especially exciting, since it allowed our members to broaden their horizons by experiencing research from other fields! In addition to research, the Club also hosted a variety of fun activities for its members to take part in, such as a Chemistry in a Box program. This program is presented by the American Chemical Society in the form of a live webinar, in which viewers can actively

participate! The theme of our webinar was the chemistry of space. It included topics such as, the requirements for life on foreign planets, environmental chemistry of the planets in our solar system and requirements for deep space travel. The program was truly fascinating and thought provoking! Another highlight of the year was the Club's annual visit to the Lancaster Science Factory. Every year a few members of the Club travel to the Science Factory to run a chemistry demonstration for the children visiting the center. This year's activities were making chromatography flowers and playing with oobleck. It was a heartwarming experience to do something fun with kids and get to teach them some chemistry along the way. Our plans for the coming year include continuing and building upon the mentoring program that we started this past year. The program pairs the incoming freshman with an upperclassman to help them adjust to college life and provide insights into the chemistry department. Lastly, we are also preparing to attend the ACS National Conference in the spring, which will be held in Philadelphia, PA!

*By Michael Perzel,
President*

2019 recipient of the
ACS Student
Affiliates Award:
David Krebs



Elizabethtown College
Chemistry Club



Chemistry Club '19-'20 Officers:

President—Michael Perzel Vice President—David Krebs
Secretary—Emily Harding Treasurer—Jessica Kasper
Marketing Chair—Grace Childs





From the E-Mailbag & Department Snapshots

I switched jobs in February. It was definitely time to move on, and it was a fantastic move. It was a promotion (in title), though I'm doing very similar work at my new post as at my old one. My new company is semi-virtual, so I primarily work from home. I direct the work of lab staff in a facility we have outside of LA, and the work of several contract development and manufacturing organizations (CDMOs), most of which are on the East coast. I do some traveling (maybe 1 trip every 4 – 6 weeks or so), which is OK. Importantly, I'm in a position again where I get to learn new things every day, which is just wonderful.

Kelly (Sullivan) Kraft, Ph.D. ('94)
Vice President, Product Development at Receptor Life Sciences

I wanted to email you to thank you for everything that you did for me and my peers during my time at Etown. I just graduated from GW with my Master's, and the biggest thing I learned is you can tell when professors truly care about their students. I knew this when I graduated Etown, but it was really reinforced during my time at GW...[I am] incredibly grateful for the chemistry department at Etown...I also wanted to let you know that I accepted a job at the Bridgeport Laboratory in Michigan as a latent print examiner and crime scene responder...I have learned a lot since I left Etown, but you and the chemistry department as a whole have prepared me for everything that has come my way. All this to say, thank you again for everything you've done!

Chelsea Melcher, M.S. ('16)

Just to catch up—I received the Stambaugh Award many years ago and I am still moving along. I am just moving past my 300th publication according to PubMed and was awarded another grant from the National Institutes of Health. I could not have done it without the solid training in chemistry at Elizabethtown College. I was encouraged by all but especially Hedrick and Proctor and greatly challenged by Dr. Ranck in physical chemistry, which was my doctoral major. He probably never imagined that I would survive but rumor has that he thought I might surprise. Hope to make it to the College sometime when the Leadership Council meets.

Henry J. Pownall, Ph.D. ('65)

I have accepted a full-time position with Juniata College's Science in Motion program! I will be their middle school science outreach coordinator, so I will be in charge of scheduling visits to local school districts for demonstrations, planning kit drop-offs when requested by the teachers, helping out with different events, and assisting in instructing a college course. I am very excited to start in the next couple of weeks and get to provide a lot of fun science experiences to a lot of kids!

Kelsi Newman ('18)

I started at Eurofins Lancaster Labs Environmental in February. I am a second shift water analyst in the GC/MS Volatiles department. I run two purge and trap GC/MS systems, testing water samples from all across the country.

Miranda Campbell ('18)



Remember these faces? Homecoming '18



We love the Chem Club!



Rotovap fun with Aubrey!



Student Awards Banquet '19



Lab Methods class field trip '19



The Chem major dancers!

DEPARTMENT OF CHEMISTRY & BIOCHEMISTRY FACULTY & STAFF



A Special Thank You to the faculty, students and alumni who contributed to this newsletter.

Chemistry and Biochemistry Faculty and Staff: Dr. Jeffrey Rood, Chair, Mr. W. Michael Bierbower, Dr. Thomas Hagan, Ms. Michele Herndon, Dr. Gary Hoffman, Dr. Kristi Kneas, Dr. James MacKay, Mr. Richard Papez, Dr. Charles Schaeffer, Dr. Lauren Toote, Dr. David Yeagley

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Students (pictured left to right)
Emily Kagarise, Steven Reehl, Aubrey Maryniak, Haley Young & Ryan Thomas trying to portray the "essence" of Professors MacKay, Rood, Hagan, Toote & Hoffman!

