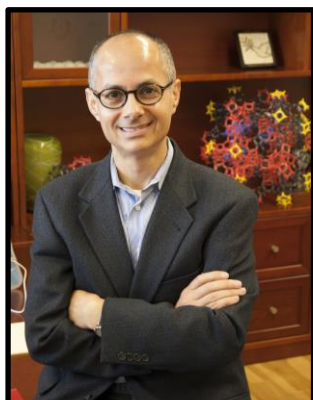


# Department of Chemistry, Gettysburg College

## ALUMNI NEWSLETTER 2016–2017 AY

Sally L. Abma  
Mary Jo Boylan  
Katherine Buettner  
Shelli L. Frey  
Timothy Funk, Chair  
Robert R. Garrity  
Lisa I. Gregory  
Mary Harrell  
Roger A. Heckman  
Donald L. Jameson  
Jeremy J. Kuhar  
Koren A. Lipsett  
William E. Parker  
John Seiders  
Anthony J. Thoman  
Lucas B. Thompson  
Michael R. Wedlock  
Lea Czar,  
Administrative Assistant



2018 Musselman Visiting Scientist  
Dr. Omar M. Yaghi

### *The Year in the Chemistry Department*

The 2016–2017 academic year was another busy one for the Chemistry Department. In May 2017, eight chemistry and twelve BMB majors graduated, and a total of seven students did research with three faculty members during the summer of 2017. You can find out more information about both further on.

One of our most major undertakings of the year was the Chemistry Department's external evaluation, under the guidance of **Prof. Shelli Frey**. Each academic department on campus undergoes this process, which involves the generation of a self-study document and a multi-day visit by faculty members from other academic institutions. The goals of our evaluation included getting objective feedback about the program and developing a plan for the near future. Our external reviewers had a lot of wonderful things to say about the Chemistry Department, and we hope you agree! They also encouraged us to explore some of the new ideas we had proposed like creating themed sections of general chemistry, where students will learn the fundamentals through the lens of a specific topic such as the environment or consumer products. This is just one example of some curricular modifications we plan on making as we strive to continue offering a student-centered, modern chemical education. Keep an eye out for more information on this topic over the upcoming years.

At the end of the 2017-2018 academic year, **Prof. Bill Parker** will be retiring from Gettysburg College. During his long career he helped countless students navigate general chemistry, served as Chair of the Chemistry Department for 18 years, and helped create the Biochemistry and Molecular Biology program. Clearly he will be missed by students and faculty alike. To honor both **Prof. Parker** and recently retired **Prof. Joe Grzybowski** and all they have done for the Chemistry Department, a fund has been created and they asked that it be used to support student/faculty research in the Chemistry Department. If you are interested in contributing, you can do so at [www.gettysburg.edu/onlinegiving](http://www.gettysburg.edu/onlinegiving). On the giving form please note that your gift is for the "Parker/Grzybowski fund in support of student-faculty research." During Homecoming weekend (September 21–23, 2018) we will be hosting a reception in their honor, and we would all (including Profs. Parker and Grzybowski) love to see as many of you as possible. Please keep an eye out for more information as the weekend approaches.



Finally, the 2016-2017 Musselman Visiting Scientist was **Prof. Stephen Lippard** from MIT. He gave a series of excellent lectures about the role of metal ions in biological systems during his visit in early April. This March our Musselman Visiting Scientist will be **Prof. Omar Yaghi** from UC Berkeley, who just won the 2018 Wolf Prize in Chemistry. If you're interested in attending, his general lecture will be Thursday, March 29 at 8 pm in Mara Auditorium.

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**Would you prefer to receive the Newsletter electronically?** If you would prefer to save a tree (and give the USPS less to do) we can arrange to have you receive an electronic copy of the Chemistry Department newsletter. Send your email address to [lczar@gettysburg.edu](mailto:lczar@gettysburg.edu) and we will send your future newsletters as email attachments. You will be able to see photos in color and also click on the active links!

## Class of 2017

Eight senior chemistry majors and twelve senior biochemistry/molecular biology (BMB) majors completed study at Gettysburg College this year. All twenty majors received the B.S. degree and four chemistry majors are ACS certified. Eleven seniors were awarded Honors in their major, one was elected to Phi Beta Kappa, one graduated *summa cum laude*, five *magna cum laude*, and six *cum laude*. Three are pursuing graduate work this fall and one is attending dental school. Others are working in a research lab before moving on to graduate school or medical school.

Aaron J. Bezio (Stafford, VA), a *cum laude* graduate, is attending Pharmacy School and Brandon M. Carcuffe (Long Valley, NJ) is seeking employment. Alex P. Delenko (Finleyville, PA), a *cum laude* graduate, is working at Lancaster Labs, while David B. Fulkerson (Annapolis, MD) is looking for employment. Julia G. Harper (Ruffs Dale, PA), a *summa cum laude* and Phi Beta Kappa graduate, holds a position at NIH before attending medical school. Celina M. Harris (Rocky Ridge, MD), a *cum laude* graduate and the Chemistry Banner Carrier at Commencement, is attending graduate school at the University of Minnesota. Ryan F. Moran (Devon, PA) has taken a position at Exxon Mobil and Ian T. Nuzum (San Jose, CA) is working at Guardant Health as a clinical lab associate.

BMB graduate Cordell M. Boggs (Taneytown, MD), a *magna cum laude* graduate and the BMB Banner Carrier at Commencement, is an associate scientist at Becton Dickinson. Stephen M. Brown (Towson, MD), a *cum laude* graduate, is working in a lab at Johns Hopkins and Annamaria Capobianchi (Poolesville, MD) is employed in a lab at Walter Reed. Sarah G. Francisco (Groton, MA), a *magna cum laude* graduate, is working and planning to hike the Appalachian Trail before attending graduate school. Benjamin P. Gantz (Hagerstown, MD), a 12/16 graduate with a second major in Music, is seeking employment while Kevin T. Lerner (Newark, DE), a *cum laude* graduate, is working in a lab at Walter Reed. Andrew R. Mahoney (Collegeville, PA), a *magna cum laude* graduate, is employed by Dow Chemical and Savannah G. Miller (Wake Forest, NC), a *cum laude* graduate, is enrolled in a biochemistry graduate program at the University of Maryland. Alexandra M. Schardt (Marysville, PA) is planning her future and Renee E. Stephens (York, PA), a *magna cum laude* and 12/16 graduate, is enrolled in dental school at Pittsburgh. Andrew L. Sydenstricker (Long Valley, NJ) is seeking employment and William D. Ueckermann (Columbia, MD), a *magna cum laude* graduate, is working at GlaxoSmithKline in Rockville, MD.

Departmental Honors in Chemistry were awarded to Aaron Bezio, Alex Delenko, Julia Harper, and Celina Harris. Cordell Boggs, Stephen Brown, Sarah Francisco, Kevin Lerner, Andrew Mahoney, Renee Stephens, and William Ueckermann received BMB Honors.

The Southeastern Pennsylvania Section of the American Chemical Society honored Julia Harper this past spring as the outstanding senior chemistry major. Julia also earned the Stine Chemistry Prize, the Society for Analytical Chemists of Pittsburgh Award, the 2017 Undergraduate Award in Analytical Chemistry, the 2015 ACS Polymer Division Award for Achievement in Organic Chemistry, and the 2014 Chemical Rubber Company Freshman Chemistry Achievement Award, which she shared with Alex Delenko. Last summer Julia was the recipient of the 2016 Glenn S. Weiland Summer Research Scholarship. Celina Harris earned the John B. Zinn Chemistry Research Award and received the 2016 Laboratory Assistant Award.

Andrew Mahoney earned the Biochemistry/Molecular Biology Award, Cordell Boggs received the 2016 ACS Inorganic Award, and Sarah Francisco earned the 2014 Sceptical Chymists Achievement Award.

## Staff Update

During the 2016-2017 academic year, **Prof. Kate Buettner** began in a tenure-track position. She is a bioinorganic chemist who is rationally designing and isolating synthetic metalloproteins, and she taught general chemistry lecture and lab, biochemistry lab, and advanced inorganic chemistry lecture and lab.

**Jeremy Kuhar** was on paternity leave during the spring 2017 semester after the birth of his daughter, and Roger Heckman, one of our lab instructors, filled in for him. Congratulations to Jeremy, Anastasia, and their daughter Ariana!

**Profs. Mike Wedlock** and **Shelli Frey** were co-chairs and were both needed to keep the department running while the external review process was happening. At the end of the spring 2017 semester **Prof. Frey** began a year-long sabbatical (part of which will be spent in Germany) and **Prof. Wedlock** passed the department chair torch on to **Prof. Tim Funk**, who was coming back from a year away from campus. Tim was leading the Gettysburg in London/Lancaster program in the fall of 2016, where he taught a seminar about the societal impacts of chemistry and how the public perceives the field of chemistry. In the spring he was on sabbatical.

**Prof. John Seiders** filled in for **Prof. Funk** during the year, and he is continuing on with the department during the 2017-2018 academic year. In addition to **Prof. Frey** being on sabbatical for the year, **Prof. Don Jameson** is also taking a year-long sabbatical. Two other visiting professors were hired for the 2017-2018 year: **Prof. Mary Harrell** and **Prof. Ryan Dwyer**. **Prof. Harrell** received her B.S. in Chemistry from the University of Tennessee at Martin and her Ph.D. from Texas A&M. **Prof. Dwyer** attended Notre Dame for his Chemistry B.S. and got his Ph.D. from Cornell. **Prof. Harrell** will be teaching general and organic chemistry, and **Prof. Dwyer** will be teaching general and physical chemistry.

Finally, during the fall semester of 2017 we hired **Lea Czar**, who succeeded our prior Academic Administrative Assistant, **Valerie Andrews**. Valerie was a great asset to the department for two years before she transferred to the Political Science Department. We also hired two new faculty members who will begin in August 2018: **Prof. Suvrajit Sengupta** and **Prof. Greg Suryn**. A more formal introduction will be given in next year's Newsletter, but **Prof. Sengupta** will be taking **Prof. Parker's** tenure-track position when he retires and **Prof. Suryn** will be teaching additional general and organic chemistry sections.

### 38<sup>th</sup> Musselman Visiting Scientist

The Chemistry Department was delighted to host **Dr. Stephen J. Lippard**, the Arthur Amos Noyes Professor of Chemistry at MIT, as our 38<sup>th</sup> Musselman Visiting Scientist this past spring. **Dr. Lippard's** research spans the fields of inorganic chemistry, biological chemistry, and neurochemistry. Included are studies to understand and improve platinum anticancer drugs, the synthesis of dimetallic complexes as models for non-heme iron metalloenzymes, structural and mechanistic investigations of methane monooxygenase and related bacterial multicomponent monooxygenases, and inorganic neurotransmitters, especially nitric oxide and zinc. His research on platinum complexes led to the co-founding of Blend Therapeutics in 2011. Based in Watertown, MA, Blend (now Placon Therapeutics) recently began a Phase I clinical trial for cancer treatment of a novel platinum-based drug based on Lippard's research.

**Dr. Lippard's** Monday evening general lecture, titled "Metal-Mediated Biological Chemistry: Pt, Fe, and Zn", was well attended by faculty and students. Three additional lectures, titled "*How Bacteria Convert Methane to Methanol at the Diron Center in Methane Monooxygenase*", "*Understanding and Improving Platinum Anticancer Drugs*" and "*Tracking Mobile Zinc in the Brain – New Probes, New Biology*", offered more technical insights into Dr. Lippard's research.

### Sceptical Chymists

The Sceptical Chymists had a busy year of lectures, activities, and social events under the guidance of senior Kevin Lerner.

Our first speaker of the year was **Prof. Graham Dobreiner** from Temple University. **Prof. Dobreiner** spoke of his work on exploring Lewis acids influence on organometallic chemistry. **Prof. Terrence J Collins** from Carnegie Mellon University came in October to talk about the role small molecule catalysts play in oxidizing environmental pollutants like endocrine disruptors. Our lecture series in the fall finished off with **Eric Monroe** from the Preservation and Research Testing Division at the Library of Congress where he talked about his efforts as an analytical chemist to preserve important pieces of the library collection.

The spring semester kicked off with a talk from our newest chemist in the department, **Prof. Kate Buettner**. **Prof. Buettner** spoke about her work on hydrolytically unstable metals in aqueous solutions and her proposed work on using *de novo* designed proteins to stabilize these metals. Our next seminar saw **Prof. P. Andrew Evans** from Queen's University in Ontario, Canada speak about his work in the area of carbocyclization reactions. Finally, **Prof. Steve Mylon** from Lafayette College finished our Scep Chym lecture series with a discussion on nanoparticle surface chemistry in aquatic environments.

Outside of the lecture hall, the Sceptical Chymist executive board was busy planning social activities and hands-on demonstrations that successfully increased attendance at all of our club events. Our chymists used their chemical know how to engage students by making liquid nitrogen ice cream, slime, and decorating cookies. Club members participated in the College's Get Acquainted Day by offering club information, which was enhanced by demonstrations of elephant toothpaste, to potential incoming classmates as part of the annual event's Clubs Exposition. A club picnic celebrated the end of the 2016-2017 academic year. The picnic included the Sceptical Chymists' distribution of the year's student awards, initiation of more than 10 new members, and election of new officers for the upcoming 2017-2018 academic year.

If you would like to see pictures from the events or just keep up with the Sceptical Chymists' events and activities, please visit our Facebook page at [www.facebook.com/scepticalchymist](http://www.facebook.com/scepticalchymist).

In addition to our Scep Chym lecture series, the BMB program brought in a number of exciting lecturers. The first talk of the fall semester was **Prof. Dana Wohlbach** from Dickinson College where she talked about her research on microbial fuel production. The second talk brought **Prof. Chris Keating** from Penn State to talk about her work on complex coacervates model systems to help understand membraneless subcellular organelles. In the spring semester, **Keith McDaniel** ('80 Chemistry) started things off talking about his role in the development of small molecule cancer inhibitors at AbbVie. Next **Prof. Edward Dudley** from Penn State came to talk about his work on understanding and tracking foodborne pathogens. In March, **Prof. Jesse Kleingardner** from Messiah College came and discussed his work on the rational design of heme-c proteins for utility in catalytic applications.

### **Student/Faculty Research 2016–2017**

The **Buettner** lab officially opened for business during summer 2017, with two students, **Alex Paredes** ('20 BMB) and **Olivia Peduzzi** ('20 CHEM), through the X-SIG program. Olivia and Alex worked to make small, structured, non-natural proteins (miniproteins) with specific metal binding sites. Their binding sites are designed to create a stable environment for titanium and vanadium. These metals have use in catalysis and industrial processes, in materials chemistry, and as therapeutics, but their use in aqueous environments has been limited due to their reactivity with water. By building binding sites into these proteins, these proteins will shield the metals from unwanted reactions with water, and allow them to function as catalysts and therapeutics in aqueous environments. Alex and Olivia were successful in making two new proteins, and over the course of the fall semester began testing for metal binding. Early results with the new circular dichroism spectrophotometer indicate successful metal binding, so they hope to begin testing the function of these mini enzymes this summer. **Olivia** and **Prof. Buettner** were awarded an Undergraduate Mentored Research award from the Mindlin Foundation, which will pay Olivia's stipend this summer.

In LipidLab, **Prof. Shelli Frey** continued work on projects revolving around the theme of structure and function of cell membranes with a focus on understanding biophysical interactions of neurodegenerative proteins with cells and developing a model system for human skin. During the past academic year, **Renee Stephens** ('17 BMB) developed a tension-sensing polydiacetylene vesicle assay to measure the interaction of exogenous materials with model cell membranes. She found that negatively charged polystyrene nanoparticles exerted a larger effect on the membrane, likely due to electrostatics. **Haoju (Orange) Li** ('19 CHEM) looked at the self-assembly behavior of lipids by measuring micelle formation as a function of concentration. **Sarah Brantley** ('18 BMB) investigated the impact an emulsifier, soy lecithin, on the physical properties of model cell membranes. Her results indicate that this obesogenic molecule readily inserts into and fluidizes the membrane, having a profound impact on its stability. Over the summer, **Prof. Frey** finished a project to quantify how sphingomyelin and gangliosides affect aggregation of the huntingtin protein that leads to Huntington's disease. The second half of the summer was spent analyzing x-ray scattering data that focused on the role of glycosphingolipids in ordering cell membranes.

During the past academic year in the Lipsett Genomics Lab, **Ben Gantz** (Dec '16 BMB) and **Annamaria Capobianchi** ('17 BMB) focused their senior thesis research on examining genomic variations in Spanish Colonial Mustangs in order to track down the mutation responsible for equine deafness. Ben resolved a PCR artifact contamination issue while Anna pushed to sequence intronic regions in the KIT gene to look for a horse transposable element that may be similar to the putative mutation responsible for the white coat, blue eyes and deafness in a pedigree of cats. **Prof. Koren Lipsett** spent the summer with **Celine Erkey** ('19 CHEM) and **Haoju (Orange) Li** ('19 CHEM) exploring deafness in horses and growth factors in cattle. Celine developed strategies examined previously elusive exons of candidate genes in new pedigree samples. Orange extracted DNA from new American (Scottish) Highland cattle samples to continue to examine genomic variations in the FGF5 and FGFR1 genes to identify a mutation responsible for the abnormal growth, or long coat, in this specific cattle breed.

During the Fall semester 2016-2017 academic year, **Prof. Tim Funk** was in England and worked with **Prof. Rachel Platel's** lab (Lancaster University - UK) and assisted her by synthesizing lactols and lactide derivatives that could undergo ring-opening polymerization with her lanthanide catalysts to make unique polyesters. Back in Gettysburg, during the spring and summer of 2017, while on sabbatical, **Prof. Funk** finished up a project that quite a few students had been working on over the last few years. They were exploring the catalytic activity of (3,4-diphenylcyclopentadienone)iron tricarbonyl compounds in transfer oxidations and reductions with a goal of understanding how ligand substitution impacts catalyst activity.

The NanoLab had a productive year in the research lab. The group traveled to the ACS meeting in San Francisco in March of 2017 where **Celina Harris** ('17 Chem), **Fontaine McFeaters** ('18 Chem), **Rich Gawel** ('18 BMB), and **Kevin Lerner** ('17 BMB) presented posters on their work. In April, **Celina**, **Fontaine**, and **Rich** traveled with **Prof. Lucas Thompson** to Penn State Berks to present at the Intercollegiate Student Chemists Convention. **Rich** won first place in the combined Organic/Analytical session. During the spring of 2017, the NanoLab welcomed **Shelby Nicolau** ('20 Chem) into the group to work on polymer nanocomposite materials. **Celina** graduated at the end of the spring semester and headed off to the University of Minnesota for graduate school in chemistry. **Fontaine** and **Rich** stayed for the summer of 2017 where they worked on quantifying adsorption of polyelectrolytes on gold nanoparticles with ITC and the environmental toxicology of nanoparticles (with **Prof. Pete Fong**, Biology faculty), respectively. **Aphra Murray** ('18 Chem) joined the group in the summer of 2017 to expand on the Celina's work with quantifying polyelectrolyte adsorption, in collaboration with **Prof. Kurt Andresen** (Physics Department) with ICP-OES. **Aphra**, **Fontaine**, **Rich**, and **Prof. Thompson** travelled to MARM-ACS in Hershey, PA in June. **Prof. Thompson** gave a presentation on the ongoing nanotoxicology work in the group.

### **Faculty/Student Publications, Presentations, Grants, and Awards 2016-17**

**Prof. Shelli Frey**, PI, along with **Prof. Kate Buettner**, **Prof. Luke Thompson** and **Prof. Kurt Andresen** (Physics Faculty), co-PIs, secured a National Science Foundation Major Research Instrumentation Grant for the acquisition of a circular dichroism spectropolarimeter for research and training of undergraduates at Gettysburg College. \$112,136. August 2017 – July 2020.

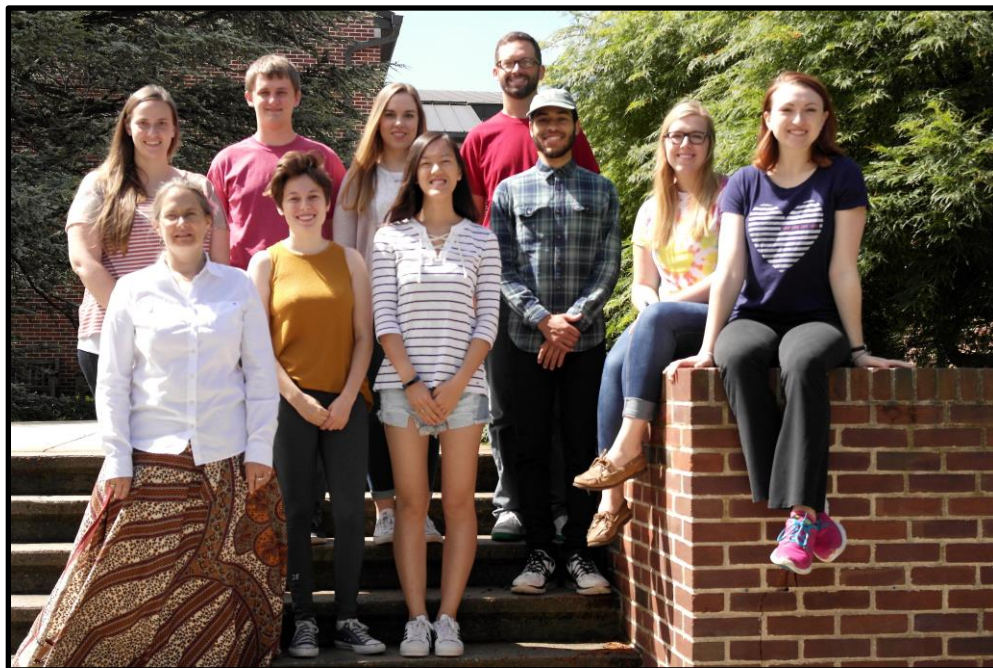
**Prof. Frey** had two publications and one presentation. "*Sphingomyelin and GM1 influence huntingtin binding to, disruption of, and aggregation on lipid membranes*" was published in *ACS Omega* (2018, 3(1), 273-285) with co-authors M Chaibva, X Gao, P Jain, **WA Campbell** ('15 BMB) and J Legleiter. **Prof. Frey** is a co-corresponding author with her collaborator Legleiter. Her second paper, entitled "*Enhanced ordering in monolayers containing glycosphingolipids: impact of carbohydrate structure*," is in press and will be found in *Biophysical Journal* this year with co-authors EB Watkins, EY Chi, KD Cao, T Pacuszka, J Majewski, and KYC Lee. At the Biophysical Society Annual Meeting in New Orleans, LA (February 2017), **Prof. Frey** presented a poster, "*The role of sphingomyelin and ganglioside GM1 in the interaction of polyglutamine peptides with lipid membranes*."

**Prof. Funk** gave four presentations last year: a poster presentation at the Organometallics Gordon Research Conference (Newport, RI, July 2017) titled "*Comparison of Catalytic Activities of (Cyclopentadienone)iron Tricarbonyl Compounds in Alcohol Oxidations and Carbonyl/Imine Reductions*," two oral presentations at the 253<sup>rd</sup> American Chemical Society National Meeting (San Francisco, CA, April 2017): "*Reaction Kinetics of (3,4-Diphenylcyclopentadienone)iron Tricarbonyl-Catalyzed Alcohol Oxidations and Carbonyl Reductions*," and "*Drugs and Cells: a Cross-Disciplinary, Medicinal Chemistry Laboratory Course*," and a third oral presentation at Lancaster University Chemistry Department (November 2016) titled "*Iron Catalysis and a Chemical Tool for Studying GlcNAcylation*."

**Prof. Lucas Thompson** had two publications, both with student co-authors. The first is "*Quantitative measurement of sodium polystyrene sulfonate adsorption onto CTAB capped gold nanoparticles reveals hard and soft coronas*" published in the *Journal of colloid and interface science* (2018, 510, 39) with co-authors **C.M. Harris** ('17 CHEM), **S.G. Miller** ('17 BMB) and **Prof. K. Andresen** (yes, our Physics faculty). Secondly, "*Differential uptake of gold nanoparticles by 2 species of tadpole, the wood frog (Lithobates sylvaticus) and the bullfrog (Lithobates catesbeianus)*" was published in *Environmental toxicology and chemistry* (2017, 36, 3351) with many student co-authors (**A.J. Sitton** ('14 BMB), **T. Bury** ('16 Bio), **L.L. Lee** ('15 CHEM), **K.T. Lerner** ('17 BMB)) and colleagues **G.L.F. Caffagno** and **P. Fong** (Biology faculty.) Finally, **Prof. Thompson** presented "*Exploring the toxicity of gold nanoparticles to aquatic amphibians*" at the 2017 Middle Atlantic Regional Meeting of the American Chemical Society, (Hershey, PA, June, 2017).



## 2017 Summer Research Students



**Front Row: Prof. Koren Lipsett, Aphra Murray, Orange Li, Alex Paredes, Celine Erkey, Olivia Peduzzi**  
**Second Row: Prof. Katherine Buettner, Rich Gawel, Fontaine McFeaters, Prof. Lucas Thompson.**

### *Gifts to the College*

The Chemistry Department would like to thank a number of generous donors who have supported the Department and the College with financial gifts in the last year.

The following donors made gifts to the Chemistry Special Gifts Fund: Angela Mendel Hunter and Jeffrey R. Hunter, James L. O'Brien, Margaret Kilpatrick O'Brien, Pauline Dale Platt and Robert T. Platt, Society for Analytical Chemists of Pittsburgh, The Chemistry Special Gifts Fund is used exclusively to help support the Chemistry Department.

Sara Benner Uehara, Jennifer Swon Lawless and Charles Boyles Lawless made gifts to the Andrew L. Muns Scholarship Fund. This fund supports a student majoring in chemistry, biochemistry and molecular biology, or biology.

Alex T. Rowland and Dean F. and Marilyn Litwak Bushey made gifts to the Rowland Memorial Fund in support of the Chemistry Department.

The following donors made gifts to the Gettysburg Fund which helps support ongoing expenses of the College. Donors include: Albert B. Accettola, Jr. and Iris Rae Accettola, Frank F. and Wendy Patterson Barr, James R. Barrett, Jennifer J. Becker, Dennis M. and Patricia R. Bleile, Robert N. Britcher, Iris Brough, Frank K. Brown, Francis J. and Mary Alice Cannon, Benjamin M. Chaloner-Gill and Sandra Weymouth, Kimberly McNeal Chambers and David N. Chambers, Ann Claassen, Robert M. Clontz, II and Jessica Leonard, Teresa C. Coffey and Michael Doughten, Chris Curley, Gary and Colene D. Czulada, Alexander P. Delenko, Peter H. and Marcella Stiffler Drake, Robert J. and Carol O. Drawbaugh, George E. Farley, Jr. and Sally E. Farley, James T. Farrell, IV, John T. Finegan and Holly J. Thomas, Elizabeth Shearer Fisher and Robert Michael Fisher, Shelli L. Frey, Frank G. Fuschino, Linda J. Fuschino, Manu Gayatrinath, William L. and Lois S. Gorodetzer, Judith Keyes Guss-Nelson, Gratia W. Hamilton, Julia G. Harper, Emily E. Harrison, Joseph B. Hess, Helen J. Hohman, Allan J. and Joyce M. Ivester, Heidi J. and Samuel T. Johnston, Jane Johnston, David W. Jones and Anya Kirvan, Philip F. Kearney, Richard L. and Bonita G. Keeports, Dale B. Kiddoo, Jack A. and M. Anne Heckler Kline, Robert J. and Mary Jane Knopf, Arthur F. Kriner and Jean P. Kriner, George B. Krone, Lambda Chi Alpha, Michael D. and Ann Valentine Lawlor, Kevin T. Lerner, J. Richard Lilly and Elizabeth Brown Lilly, Steven D. and Donna H. Lind, Edward C. Lis, Jr., Lord Aeck Sargent, Carol and Robert Love, Amy E. Lucadamo and Timothy W. Funk, Gregory V. and Janet Heiland Mas, Tina Tao Maynes and Jeffrey T. Maynes, John R. and Natalie E. McGill, Carl Meier, M. Lynn Myers, Ronald E. and Ewha Myers, Donald L. and Jane S. Oakley, Claudia M. O'Brien, James L. O'Brien, Margaret Kilpatrick O'Brien,

Devin M. O'Connor, Deborah E. Otis, Taylor N. Plank and Luke W. Cuculis, Erin E. Podlesny, Alex T. Rowland, Graham W. and Kylie Schleicher Sauer, Alexandra M. Schardt, Steven B. Schram and Diane Lazarus, Doris Pickel Schumacher, William C. Shakespeare, III and Betina D. Shakespeare, Richard M. and Dorothy Lloyd Simpson, John R. and Charley May Socey, Rebecca A. Sponenburg, Lisa Evans Steel and Adam B. Steel, Brad M. and Nancy S. Steffens, Bryan V. Stokes-Cawley, Hugh M. and Maureen T. Taylor, Alison Kranitz Walsh and Nathan Walsh, Barbara Biffar Warren and Robert E. Warren, Quentin C. and Margaretta Curry Weaver, Oscar W. Weber, Wallburga Mank Weber, Sharon Hilgen Willis and David R. Willis, Judith Lehn Wolfe, William H. and Kathleen E. Wunner, John B. and Effie Miller Zinn.

### News from Our Graduates

**50's Margaret O'Brien '59** taught chemistry for 24 years at Duxbury High School, she passed away in early October.

**70's Martin Brechbiel '79** retired from the National Institutes of Health as the head of the Radioimmune Inorganic Chemistry section in late October. He continued his generous support of the department, and has returned to campus a few times in recent months. **Dennis Bliele '72** visited campus in the fall. After graduation, he completed his PhD at UNC Chapel Hill and a postdoc at UT Austin. He is now the Senior Director of Research and Development at Abaxis, a small *in vitro* diagnostics company in the San Francisco Bay area. We look forward to having him visit again in the near future.

**00's Michael Mack '06** stopped by the department on a college visit for his daughter. He got married in December, and is working as an office manager at the Pond Lehigh Stern Giordano law firm in Philadelphia. **Chris Hoffman '07** is working in materials chemistry at the Johns Hopkins Applied Physics Lab, he returned to campus in October to present as part of the Sceptical Chymists seminar series. **John Young '03** is a research and development manager at Wacker Chemical Corporation in Ann Arbor, MI where he works on silicone research. **Ted Grimm '09** earned his master's degree in geology and is now an analytical research scientist at A123 Systems.

**10's Luke Cuculis '12, Taylor Plank '12, and Daniel Kim '12** returned to campus last fall to serve on a department panel on graduate school. Luke is working for the Boston Consulting Group. Taylor recently completed her PhD at the University of Maryland. Dan is finishing his PhD at UC Irvine, and will then move on to a postdoc at Princeton with Dave MacMillan.

**Kaytie Innamorati '14, Stacey Heaver '15, and Ida DiMucci '15** returned to campus to participate in an X-SIG panel on graduate school. Stacey and Ida are both in PhD programs at Cornell and presented research seminars during their visit. Kaytie is in a PhD program at Drexel University and returned to campus again in the fall to guest lecture in the biochemistry course. **William McCanney '12 and Katie Boas '16** also returned to campus to participate in an X-SIG panel on careers this summer. William is an analyst at Griffin Financial Group, and Katie works at Eurofins Lancaster labs. **Andrew Krasley '10** successfully defended his PhD thesis at Bryn Mawr in December. **Dan Ziegler '10** completed his postdoc with Bob Grubbs at Caltech, and is now working in process chemistry at GlaxoSmithKline. **Andrew Cinderella '12 and Tom Field '12** recently earned their PhDs at the University of Delaware and University of Kansas respectively.

**Stephen Bilheimer '13** is pursuing his PhD in immunology at the University of Iowa. **Becky Sponenburg '14** earned her MS in chemistry from Northwestern and is now a research technologist in Northwestern's Quantitative Bio-element Imaging Center. **Travis Beard '14** began a position at BioCoat Inc. in Horsham, PA last summer. **Carli McMaster '14** is working at Merck in West Point, PA. **Kevin Mrugalski '14** is a graduate student in chemistry at the University of Maryland where he is studying bacterial biofilms. **Filzah Iqbal '15** recently completed her Masters at the University of Chicago in biomedical informatics.

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Keep those cards, letters and e-mails coming - we enjoy hearing from you! If you can provide information about your classmates, we like that, too. For those who prefer to correspond electronically, you can find our email addresses through the departmental web page: <http://www.gettysburg.edu/academics/chemistry/>

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