Winter, 2021

Heather Hintz (‘17) performing a synthesis in Dr. Dahl’s lab.
Chair’s Corner

Greetings! Welcome to the first issue of The Periodical, the UWEC Department of Chemistry and Biochemistry Newsletter. This is not our first newsletter, but it is the first one we’ve sent out in a long time, so I figured an official title was warranted. My hope is that subsequent issues go out on a regular basis henceforth. (That was sort of like when I tell my students that I will have their exams graded by the next class, and I am thus compelled to finish them.)

The first question on your mind is likely, “How has it been going amidst the pandemic?” The answer is varied and complex, but in a word, we have done “OK”. Our faculty and staff quickly rose to the challenge, creating new materials for 100% remote instruction last spring, and we were able teach essential concepts with some degree of effectiveness, and keep students’ lives moving forward. During summer, we had a smaller-than-usual research program - but we had a research program! For those of us working with students in the lab, it was effective prep for fall in-person teaching.

Last semester, we offered mainly primarily split-cohort hybrid lectures, in which the primary content was delivered online, but a sub-set of students (1/2 or 1/3) would attend in-person on a rotating basis for Q&A and various student-centered activities; actual time to interact with their professor in person. This seemed to make an immense impact on student engagement relative to spring. Labs were primarily split-cohort as well, with two groups, and each attending every-other week, and performing on-line activities during the off weeks. The feedback we received, especially in our 100-level labs, was incredibly positive. Note: First-year students are typically not citing their chemistry lab as their favorite course – this year they were! Our faculty and staff delivered, but make no mistake about it, we look forward to having students back in real time. If we learned one thing, it was how much seeing our people matters to us.

What else have we accomplished since you last heard from us? For one, you likely noted the department name change; adding “Biochemistry” to our title reflects our on-going commitment to the BMB program, and also the fact the we have a (relatively) new Biochemistry emphasis for our ACS chemistry major. We have otherwise continued to refine our curriculum, having deployed an updated first-semester gen. chem. course a few years ago. We have also just recently “enhanced” the requirements for our ACS chemistry major as well, and will soon begin planning an update of chem-biz. We even have a few emerging industrial partnerships, but we will highlight those in the next Periodical.

Equity Diversity and Inclusion (EDI) has long been a priority in the department, but after years of slow, incremental progress, we have created a departmental EDI task force. This group is drafting a strategic plan to facilitate our continued improvement in this area. In the past week, we officially deployed a new first-year scholarship program (Diversity Fellows), which is designed to bolster racial, ethnic, gender, and LGBTQIA+ diversity in our programs. This will provide two awards of $2500 per year, renewable for up to four years, and we are hoping to fund this program via new donations henceforth. We also have a new web feature “Chemists and Careers”, which highlights the careers of both Blugold Alumni and others, mainly from the ACS careers page. The intent is to highlight the great many career options that one can pursue with a degree in Chemistry or Biochemistry, and the diversity of individuals in them.

Last but not least, we’ve had to say “good bye” to a few faculty and staff members. Believe it or not, Fred King actually retired a few years ago, but he is still in the building, and his jobs are clearly visible in the supercomputing cluster queue (more on supercomputing the next issue as well). Rumor has it, he is cataloging rare plants in Putnam Park. In addition, two long-time academic staff members, Mark Stanley and Chris Rhode have retired recently as well. We thank all of these individuals for their dedicated service to the Department.

In the following pages, you’ll see plenty of additional accomplishments and news items. I hope you enjoy them! Note also that you will see some mask-free photos in these highlights; they are pre-pandemic. This update reaches back prior to the onset of COVID-19. We have had the additional layer of PPE in place full-time since last spring.

Dr. Jim Phillips
Chair, UWEC Chemistry and Biochemistry
New Faculty and Staff

Dr. Krysti Knoche Gupta

Dr. Knoche Gupta joined the Department in August, 2018 as an assistant professor, and her main teaching duties have been in the area of analytical chemistry. She received her Ph.D. in analytical chemistry from the University of Iowa, then completed postdoctoral research at the University of Utah and Iowa State University before coming to Eau Claire. Dr. Knoche Gupta is an electrochemist who has already collaborated with 14 UWEC students in research to develop new bioelectrochemical energy systems and investigate the mechanisms of complex electrochemical reactions. In her free time, she enjoys reading, knitting, cooking, and cross-country skiing.

Dr. Deidra Gerlach

Dr. Gerlach joined the department in August, 2019 as an assistant professor, and will be bringing new leadership to the Chemistry with Business Emphasis program. She is a 2006 ACS-chemistry graduate of the University of Wisconsin – Eau Claire, where she did research with Dr. Mike Carney, working on his collaborative project with Chevron-Phillips. She then attended the University of Michigan, earning a MS and PhD degrees under the direction of Dr. Nicolai Lehnert and Dr. Dimitri Coucouvanis. After a post-doc at Alabama, she took a position as a Lead Chemist at BoMax Hydrogen LLC, an alternative fuels startup company opening their doors in Cape Canaveral, Florida.

Dr. Anna Cook

Dr. Cook joined the department in August, 2020 as a lecturer and coordinator of our general chemistry program. She graduated from the University of Wisconsin – Eau Claire in 2008 with a B.S. in Chemistry (ACS). She then entered the PhD program at the University of Iowa, where she joined the Dr. Amanda Haes research group, completing her degree in the Spring of 2014. Before returning to UWEC, she taught at the University of Iowa and at Gustavus Adolphus College as a Visiting Assistant Professor, focusing on teaching general chemistry and organic/inorganic labs. She’s looking forward to enriching the general chemistry experience for all students by working towards a cohesive and comprehensive program.
Department Highlights

Research: COVID-19 Case Severity

One year ago, the world came to know about the novel coronavirus disease 2019 (COVID-19), and on March 11, 2020, the World Health Organization declared the COVID-19 outbreak a global pandemic. As they began receiving the heart-wrenching news of the loss of human lives across the world, Drs. Bhattacharyay and Hati engaged their research group in a study of the novel coronavirus, SARS-CoV2. As initial reports suggested certain underlying conditions made patient outcomes more severe, they started a computational investigation to understand the biophysical/biochemical reasons behind the severity of this disease. To pinpoint the molecular basis for the variations in the severity of the COVID-19 infection, the group examined the effect of redox changes on the binding of the virus spike protein to human cell surface receptor, angiotensin-converting enzyme 2, using computational tools. Their findings suggest that oxidative stress, the imbalance between free radicals and antioxidants in our body, could influence the thiol-disulfide balance in the cell and thus impact the binding of the virus spike protein to the cell surface receptor. Preliminary results of their research were published in ACS Omega. Continuing to the summer, a group of nine research students reviewed the role of oxidative stress on the COVID-19 infection. The review article was published in The Protein Journal. A detailed mechanistic study of the interactions between SARS-CoV2 and human receptors is being continued in collaboration with their research students and students enrolled in the Biophysical Chemistry course this fall semester.

Research: Lake Michigan Air Pollution

Dr. Patricia Cleary and her students have been investigating ozone and air quality near the shores of Lake Michigan since 2007, incorporating measurements made via various platforms (ground-based, ferry, automobile). This has led to an interest in using unmanned aerial systems to measure ozone in the complicated shoreline environment where off-shore ozone tends to be high and lake breeze meteorology plays a complicating role.

The Cleary group has been active in the field this year, measuring ozone and meteorological variables using Unmanned Aerial Vehicles. A skeleton crew of Drs. Cleary and Joe Hupy (Purdue University) were in the field in June 2020 to conduct measurements for a poor air quality episode. Collaborators at UW-Madison assisted in forecasting air quality conditions at the site and added a LIDAR WindPro instrument to the Chiwaukee Prairie air monitoring station. Analytical chemistry skills are essential for making sure the ozone measurements are accurate and precise while on a UAV.

UWEC research students worked intensely during the field campaign to process data remotely (or more accurately, back home) during the campaign to help the field crew improve their understanding of the measurements day-to-day. The observations led to a new explanation for a low-altitude anomaly at this site, where a temperature inversion in the atmosphere is pronounced starting at approximately 40 meters above ground level, where ozone most days was highest above that altitude. The measurement strategy is very helpful for atmospheric chemists to understand the 3-dimensional problem of air quality in this region, where models are most often validated using ground measurements, which do not always indicate the dynamics of the lower altitude stratification of air. Plans are in the works to be back in the field next summer, with potentially more UAVs. This work is of interest to regional air quality modelers and regulators in that hopefully it can lead to improved models for ozone in a shoreline environment, which directly impacts regulatory strategies for air quality improvements.
New Instrumentation: X-ray Diffractometer

For many years, the Department had possessed an X-ray diffractometer, but through the years, this system, based on 40-year-old technology, became in operable. The recent addition of Dr. Deidra Gerlach to the department, who has a background in crystallography, renewed the interest of long-term departmental crystallographer Dr. Jason Halfen, and together they (in their own words) “hatched a plan” to acquire funds to purchase a new diffractometer that would allow crystallography to be accessible to students, both in research and in the teaching laboratories.

In Fall 2019, the Department obtained a benchtop diffractometer on loan from Rigaku Corp. This instrument was temporarily set up in the p-chem lab, and was used extensively by CHEM 420 as well as research students for about a month. During that time, Gerlach and Halfen screened 133 samples; 29 were partial datasets to confirm compound identity and 45 were full datasets that established structures. This demonstrated the worth of this instrument to the department, and that it would achieve a majority of the crystallographic goals.

Thus, in January, Dr. Gerlach drafted a grant proposal 2020 to the NSF-Major Research Instrument fund with Dr. Halfen as a co-PI, and Drs. B. Dahl, Lewis, Phillips, and Wiegel as senior personnel.

After a minor budget revision, the NSF funded this proposal, which enabled the purchase the XRD, computer, and associated software. The budget revision meant that a new cryostat could not be purchased. The cryosystem allows for samples to be cooled to decrease the movement of molecules in the crystal lattice, which aids to achieve publication-quality data for structure determination.

Regardless, the new Rigaku XtaLABmini II system was installed this past fall, and it enables us to collect data for up to two samples per day, and often determine atomic resolution structures in as little as an hour, which is perfect for use in instructional laboratories. In CHEM 420, for example, multiple students obtained their own X-ray structures in a three- or four-hour laboratory period. As an added bonus, the new diffractometer as a relatively small footprint, operates without special utility or environmental needs, and have dramatically lower cost of ownership fitting our campus goals for sustainability and reducing environmental impact.

Faculty Award: ChemCUR Outstanding Mentorship

In March of 2020, Jim Phillips was selected of one of three winners of the ChemCUR Outstanding Mentorship Award, presented by the Chemistry Division of the Council on Undergraduate Research. This national award recognizes not only effective mentoring of undergraduate students in individual chemistry research projects, but also integration of undergraduate research into the academic curriculum, utilization of diversity and inclusion best practices, and the establishment of programmatic infrastructure that enhances undergraduate research. Dr. Phillips award citation recognized not only student presentations and co-authored manuscripts, but also his intensive work on student writing, as well as his administrative efforts to promote undergraduate research and mentor junior faculty to that end.
2018-19 Graduates

Biochemistry-Molecular Biology

Baschky, Duncan Craig
Hottmann, Megan Margaret
Huber, Robert Douglas
Johnson, Anneka Lila
Johnston, Anna Rose
Lenzner, Bruce Allen
Lindberg, David Joseph
Meier, Anna Eileen
Meyer, Samantha Marie
Njie, Fatou B.
Odmark, Caleb Benjamin
Ostroot, Mark Allen
Rigden, Gabrielle Elizabeth
Rothbauer, Dylan Richard
Rowan, Alicia Kathleen
Theisen, Cole Omon
Waters, Claudia Sue
Weeks, Katelyn Marie
Welter, Allison Lynn

Chemistry–A.C.S.

Blythe, Jonathan Bruce
Egbert, Kelsey Rose
Gutjahr, Erica Ann
Johnson, Kristian Lars
Kurth, Maranda Diana
Ley, Anna Rose
Mooney, Rachel Loraine
Wissbeck, Rachel Elizabeth
Wyczawski, Jayce Leonard
Zehner, Brittany Carol

Chemistry–A.C.S.: Biochemistry Emphasis

Her, Lysengkeng
Melanson, Alec Peter

Chemistry–Liberal Arts

Becker, Samuel Jacob
Huther, Holly Amanda
Egdorf, John Richard
Hicks, Matthew Jacob
Huther, Holly Amanda
Kong, Liangyu
Lindstrom, Anthony Gale
Salzer, Luke D
Schmidt, Ryan John
Walbrun, Zachary Scott
Waniger, Benjamin Forrest

Chemistry–Teaching

Adams, Peyton Ann
Alger, Michael Gary
Liesner, Joshua David
Nennig, Hannah Terese
Pronschinske, Nathan Joseph

Chemistry with Business Emphasis

Boucher, Michelle Margaret
Cantu, Corey Allan
Clark, Rebecca Mary
Hammill, Ayla June
Klug, Samuel John
Laferriere, Ethan James
McArthur, Rachel Audrey
McCanna, Maxwell Philip
Merrell, Joshua Stewart
Richert, Alexander Paul

Winter, 2021
2019-20 Graduates

Biochemistry-Molecular Biology

Aakhus, Amy Lynn
Dawson, Logan William
Williams, Murphi Theresa
Almen, Aimee Elizabeth
Berns, Lauren Tressa
Coerber, Breanna Nicole
Hunger, Andrea Lynn
Johnson, Joseph Lee
Plack, Naomi Kay
Suhail, Shanzay

Chemistry–A.C.S.

Barry, Natalie Morgan
Puser, Melany
Wenzel, Michael Joseph
Breuer, Matthew Allen
Dokken, Sierra Elizabeth
Treacy, Patrick Wrightman
Xiong, Mai Xeng

Chemistry–A.C.S.: Biochemistry Emphasis

Vang, Chee Iab
Deasy, Graham Matthew
Matuseski, Jack Laurence
Pollock, Alicia Ann
Whitmer, Mackenzie Kylie

Chemistry–Liberal Arts

Berry, Kendra Kathleen
Barta, Nathan Thomas
Draghicchio, Jacob Thomas
Kajer, Josephine Christine
Deetz, Corwin Scott
Hughes, Thomas Patrick Garvey
Idarraga, Katrina Lynn
Kemper, Kamryn Rae
McNaughton, Brock Thomas
Schepp, Jacob Anthony
Schwoerer, Guenter Donald

Chemistry with Business Emphasis

Aarsvold, Bethany Jane
Di Natale, Isabella Grace
Lorentz, Chandler James
Neumann, Matthew Glenn
Strenke, Chelsey Louise
Upton, Riley Thomas
Reffke, Weston Dale

May 2019 Chemistry Graduate Zach Walbrun receives his diploma. Zach is a now PhD candidate at the University of Oregon.
Awards and Scholarships: 2019

**Anna M. Thurston Scholarship**
- Aaron Tenner

**Chair's Chemistry Student Award**
- Jacob Thomas Dragicchio
- Anthony Gajeski
- Max McCanna
- Luke Salzer
- Ben Johnson
- Holly Huther

**Chemistry Mentoring Scholarship**
- Shanzay Suhail

**Dr. Jack Pladziewicz Research Scholarship**
- Murphi Weinzetl

**Floyd and Marie Krause Memorial Scholarship**
- Aaron Bruckbauer
- Brianna Check
- Shanzay Suhail
- Jessica Liebau

**L.A. Ochrymowycz-Alfred Bader Chemistry Scholarship**
- Devon Hucek

**Lois and Mel Gleiter Scholarship Award**
- Jessica Liebau
- Jordan Munos

**Perry and Helen Luchsinger Scholarship**
- Sean Parsons

**Phillip J. Chenier Scholarship**
- Sean Parsons

**Students of Dr. O Chemistry Scholarship**
- Roy Cornett

**ACS Inorganic Chemistry Award**
- Lindsey Coonen

**ACS Senior Organic Chemistry Award**
- Samantha Meyer

**ACS Freshman Achievement Award**
- Jennifer Boyle
- Cole Birch

**ACS Analytical Chemistry Award**
- Sean Parsons

**ACS Organic Chemistry Award**
- Brianna Check

**ACS Physical Chemistry Award**
- Zach Walbrun

**AIC Outstanding Senior Award**
- Samantha Meyer

**Departmental Honors Graduates**
- Anna Ley
- Samantha Meyer
- Hannah Nennig
- Katelyn Weeks
- Brittany Zehner
Awards and Scholarships: 2020

Anna M. Thurston Scholarship
Kelly Koerber

Chair's Chemistry Student Award
Shanzay Suhail
Aaron Tenner
Katrina Idarraga
Lindsey Coonan
Jessica Liebau
Jennifer Boyle

Chemistry Mentoring Scholarship
Audrey Gerzma

Dr. Jack Pladziewicz Research Scholarship
Connor Dolan

Floyd and Marie Krause Memorial Scholarship
Briana Check
Devon Hucek
Sean Parsons

L.A. Ochrymowycz-Alfred Bader Chemistry Scholarship
Roy Cornett

Lois and Mel Gleiter Scholarship Award
Keisha Kappel
Sydney Dame

Phillip J. Chenier Scholarship
Josie Radtke

Students of Dr. O Chemistry Scholarship
Sean Parsons

Univar USA Scholarship
Ryan Berger

ACS Inorganic Chemistry Award
Courtney Westlund

ACS Senior Organic Chemistry Award
Eric Colwitz

ACS Freshman Achievement Award
Kelly Koerber

ACS Analytical Chemistry Award
Josie Radtke

ACS Organic Chemistry Award
Nick Grande

ACS Physical Chemistry Award
Sean Parsons

AIC Outstanding Senior Award
Shanzay Suhail

Departmental Honors Graduates
Alicia Pollack
Faculty Updates

**Dr. Scott Bailey-Hartsel**

Like everyone, I’ll be happy to see 2020 gone but there were good things too. My last daughter Rozzy has graduated in the sciences (the first of 3 to do that!). Aside from that, Bailey and I have had a quiet and peaceful life with our two dogs—quarantines are great for introverts. Appropriately enough, we have spent many afternoons playing the Plague Inc. board game. My research work of late has involved two of my favorite things, applied research and beer. My students and I have been developing simple and inexpensive methods to help local brewers evaluate VOC flavors in their beers for QC/QA purposes and just out of curiosity. That has resulted in a recent publication in the Master Brewer’s Association of America Technical Quarterly. Probably a first for this department I bet! In addition, we have begun a field/lab research project with Silver Springs, of international horseradish fame. In my spare time I have enjoyed expanding my cooking, baking and fermenting repertoire. Always happy and proud to hear of the achievements of my past students that are too numerous to list here. Keep in touch OK?

**Dr. Sudeep Bhattacharyay**

As a part of my ongoing year-long sabbatical at the Universitat Jaume I, I was making the final plans to return to the Spanish city of Castellon, by the Mediterranean Sea, in the spring. But by the end of March, it became clear to me that my trip to Spain must be canceled, and then, from April onwards, along with the entire nation, we entered the world of ‘social distancing.’ Undoubtedly, this was frustrating and monotonous, at times, when confined into the same 3D space, day after day. On the other hand, it offered me a rare time to spend on things that I care for deeply. I had quality time with my daughter Antara, a high school senior. With my wife Sanchita, I started a new research project on the role of oxidative stress on Covid-19. Also, priority was the purchasing of the National Science Foundation-supported High-Performance Computer Cluster. Thanks to Chip Eckardt of LTS and my fellow Material Science colleague, Ying Ma, the hard work finally came to fruition. The new Hewlett Packard Enterprise cluster comprising 61 nodes 3904 cores would be available for research and teaching for the entire UWEC campus at the beginning of the next year. I also became involved in a University-wide volunteer group, led by Dang Yang of OMA, to contribute to the Equity, Diversity, and Inclusion plan. On the research front, my students continued to work with me on various computational chemistry research projects, which progressed well during the fall semester along with the students of my Biophysical Chemistry class.

**Dr. Patricia Cleary**

I am on sabbatical for the entire academic year for 2020-2021. The plans to be elsewhere for my sabbatical were scuppered, so I have set up workspace in my house for a mostly off-campus sabbatical leave. We were able to successfully do a field campaign in June 2020, as a part of an NSF-funded research project in collaboration with Joe Hupy (at Purdue University). The field campaign was my only time spent away from home this year, and it was fun but also a lot of work. My husband and I are now both working from home and entertaining the dog, Montego, as best we can. Too many house projects have been started during this sabbatical, so I am not only getting needed publications done, but there tends to be a lot of disruption and noise in the house when something like a new furnace is being installed. I am looking forward to getting back to the peace and quiet of my on-campus office in the future.
Dr. Bart Dahl

Life has been good in 2020. I got a lot of practice learning how to design and teach a hybrid course. It was good to see my Organic Chemistry I students in person on a regular basis. I am looking forward to improving my hybrid course for Organic Chemistry II in the spring. We learned how to get research results while social distancing. Our group published two papers on our lactone-tethered aryl-aryl switches and dibenzopyrylium dyes in 2020. My family (Jenny, Amanda (13), Eric (9), and Vincent (7)) and I got to spend a lot of quality time together. We explored the numerous outdoor activities that the Chippewa Valley has to offer and did a lot of local hikes and had a lot of backyard campfires. Eric got interested in skateboarding and inspired me to dust off some of those “skills” as well – it has been a fun bonding activity.

Dr. Jennifer Dahl

2020 was a year filled with navigation of the unexpected, but it wasn’t all bad! I was on sabbatical for Spring 2020. The closure of campus threw a wrench in my plans to dwell in the lab and wrap up a long-term project, so I turned my attention toward crafting a new version of the REU at UWEC-fingers crossed that it will be funded! We eased back into the lab over the summer, and I successfully navigated a semester of hybrid teaching in the fall. I learned some new teaching methods that I will carry with me into the future. I also took on a new role as one of the faculty representatives for the design of the new Science and Health Science Building. The committee is still in the early stages of planning, but it’s clear that a fantastic, flexible new building is already taking shape. We can look forward to plenty of space for research, as well as expanded collaboration with industrial partners and the health care sector, which means loads of immersive experiences for our students!

Dr. Steve Drucker

Photo shows care-free days before the pandemic, but we seem to be managing very well in the Dept. of Chemistry and Biochemistry. During summer 2020, our laboratory research in spectroscopy was curtailed, but students in the group valiantly kept research alive through provocative computational work, along with some nice organic synthesis that will alleviate our dependence on chemical suppliers for oddball compounds. The post-pandemic future is bright, with new NSF funding for a multi-photon ionization detection system. This is my 23rd year on the faculty, further evidenced by our aging (13 and 20 yo) children, who are thriving, respectively, at DeLong Middle School and Swarthmore College.

Dr. Warren Gallagher

Last year I stepped down as Chair of the department after a six-year stint and handed the controls off to Jim Phillips, who has been doing a commendable job these past few months of navigating the department through the turbulent times of the pandemic. I have really appreciated the way all of my colleagues have stepped up to keep our programs on the rails and moving in the right direction. It is therefore with some apprehension, that I plan to step off the train as it leaves the station at the end of the spring semester and begin my retirement. I am, though, looking forward to spending time with my grandchildren, traveling, and helping out more in the community. I will be taking with me many fond memories of the students and colleagues I have had the good fortune to travel with over these past 32+ years.
Dr. Deidra Gerlach

The adjustment to being back in Eau Claire took a few months. My first winter back North was a hard one and living in Eau Claire again felt like walking déjà vu. Thankfully, that has worn off by now. I wholeheartedly enjoy working with my fellow professors; some I had as instructors myself and some are new faces that have been exceptional colleagues! I have inherited Mike Carney’s research space and currently have five fantastic research students working on three different projects. Two are synthetic and the third is an ongoing analytical collaboration with a Wisconsin chemical company. Creating new and reinvigorating old connections with industry contacts has been part of my goals in this new position. I am always happy to connect without alumni, so please find me on LinkedIn or send me an email. Aside from my students’ successes, I think I am most proud of being the first ever first-year faculty to submit and receive funding from the National Science Foundation for Major Research Instrumentation which allowed for the purchase of the benchtop single crystal X-ray diffractometer.

Dr. Sanchita Hati

The year 2020 has been a challenging year. The ongoing pandemic is taking an emotional and physical toll on students, faculty, and staff. However, as a cancer survivor, I have learned to see the bright side in every situation. Although it was challenging and stressful to teach online classes and supervise research students remotely, the hybrid-model of teaching gave me the scope to be more creative in the classroom and lab. This pandemic has also offered some exciting opportunities— I participated in several virtual events (regional/national/international) and attended webinars on a wide range of topics, from chemistry to social issues. I also presented webinars, even one at midnight, to college students in my home state of India. In addition, this year has been quite productive for my research group. In collaboration with Sudeep, I mentored several research students remotely and published four peer-reviewed articles, with two articles on COVID-19. On the home front, I am getting more time to spend with my daughter (she will be heading to college next year) and listen to her playing the violin and piano. Overall, I am trying to remain positive and hopeful during these tough times.

Dr. David Lewis

2019 was eventful: three trips to Russia for sesquicentennials of Markovnikov’s Rule [Moscow (photo) and Kazan] and Mendeleev’s Periodic Table [St. Petersburg]; no new plans until COVID-19 is under control. 2020 has been quieter, but tougher— anyone who says that online teaching is easier hasn’t done it. I now have my final research student. I have five books under contract at present and published one Angewandte and two Synform articles this year. Debbie continues as Partnership Coordinator at Lakeshore Elementary (she has me playing “virtual Santa Claus” online for the children there this Friday; off campus, I am still better known as “Deb Lewis’s husband”). Graeme is a substitute in the Eau Claire School District; Veronica lives in Melbourne (where they are COVID-free) about to graduate with her Master’s degree in International Development at Monash University; she is likes it there and is staying in Oz at least one more year.
Dr. Cheryl Muller

Hello from Cheryl Muller! Last Spring, we had a great Chem Demo team traveling to schools with chemistry activities and demos, and sometimes having scouts and 4-H kids come visit us on campus. That's on pause for now, but hopefully will be back up and running soon. I've been learning more about teacher education, and am starting to advise future teachers from UWEC who will be in high school chemistry class rooms. If you are currently a teacher, or have recently been in a classroom, it would be great to hear what you think about what is most needed right now. I'm still working with pre-pharmacy students and teaching a lot of organic chemistry to Chem, Biochem, and B/MB majors.

Dr. Jim Phillips

Life has been busy, mostly due to a new term as Department Chair, but that chaos has been balanced by both kids completing college (one with a UWEC music degree!). The dog count is up to three; Finn (the big yellow dog) was joined by Sparky and Sophie in Spring of 2018. We do lots of walking, mainly near campus. Musical endeavors have stalled, but you can find “Phase I” of the Jim Phillips Project on Spotify and Apple Music. Free time has mainly consisted of gardening and numerous trout fishing trips (some successful). The research group has remained mostly active despite the distractions; last summer we moved a cryostat into the p-chem lab to keep the matrix work running full-bore with social distancing in place. We also did publish a paper in the International Journal of Quantum Chemistry last spring, and are hoping for a new installment of grant funds next year.

Dr. Kurt Wiegel

Liquid crystals wait for no man, or virus for that matter. We started the Winterim of 2020 with three researchers (Eric Colwitz, Zach Fike, and Roman Somogy) and were going well with naphthoic acid groups as hydrogen bond donors when we shut down in March. Undeterred the group pressed on in the summer finishing up major sections of the project that only await my writing them up for publication. Eric and Zach both graduated in December and Roman graduates in May of 2021.

Dr. Thao Yang

Professor T. Yang has become an old timer at the department here. Why would he not be an old timer? He asked. Well, when he met some of his former students, they have turned grey! Yes, it's been an amazing experience to have seen many of you received your education at the department here and become successful in your career. Also, it is great to communicate via this newsletter to let you know that professor Yang and his wife is doing well because we have not done this for many years. Professor Yang is still cranking away in teaching and research. Although, in the last couple of Christmas eves, he has not promised himself and his research students of Christmas eve discovery. All his kids have grown up and graduated from college. At the moment, teaching during the pandemic covid19 has many challenges, our students struggled to learn and professors have to be adapted to many new adjustments. Some goods did come out of it; ‘I have to learn many things in teaching my students via technology.’ I hope many of you come back and visit your old chemistry department, now named department of Chemistry and Biochemistry.
**Alumni: Stay in Touch**

Hearing from our former students is one of the most rewarding aspects of the education business. Sharing your career successes or other life-happenings with us is truly energizing. So, when you have chance, please email your old professor, the Chair, or even use the comment box at the bottom of our home page.

You can also follow us on social media to get regular updates:

Facebook: @uweccchem

Twitter: @UWEC_chem

LinkedIn: https://www.linkedin.com/groups/12407305/

**New First-Year Scholarships: Diversity Fellows**

The Department of Chemistry and Biochemistry Diversity Fellows Program was designed to bolster racial, ethnic, gender, and LBGTQIA+ diversity in our programs, by facilitating the recruitment and retention of high-achieving students from these underrepresented groups. It is open to incoming, first-year students majoring in Chemistry, Biochemistry (ACS Biochemistry and Biochemistry/Molecular Biology), and Chemistry with Business Emphasis. Two awards will be offered annually, each will provide an academic-year scholarship of $2500, which is renewable for up to four year. This program will be funded exclusively through donations from alumni and friends going forward, and we have also established a fund to support summer research opportunities for these students.

**Give to the Department of Chemistry and Biochemistry**

One thing that helps us maintain outstanding academic programs and offer cutting-edge research opportunities for students is the on-going support of our alumni and friends. Through the years, we have effectively used funds from our “advancement account” to supplement laboratory modernization allocations to expand their impact. In general, however, routine instrumentation is getting more challenging to acquire and maintain; we can compete for competitive grant proposals for novel, up-to-date instruments, but funding for basic equipment like FTIR’s and GC-MS’s is harder to come by, and equipment repair and maintenance presents an on-going challenge.

Note also that the scholarships listed on the preceding pages, which total about $15,000 per year in student support, as well as the new “Diversity Fellows” program highlighted immediately above, are funded exclusively by donations from alumni and friends. Several department faculty also contribute to these funds.

To give to the department: Use the “Give” button at the bottom of any page on our web site.

The Chair is currently working to update this feature so that is more directly connects to our accounts, but for now you can: Go there, click “search”, type in “chemistry”, and this will take you immediately to a list of options to make a one-time or on-going donation to our advancement fund or any one of our student scholarships.