



University of New Hampshire
Department of Chemistry
Fall 2016 NEWSLETTER
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A message from the Chair...

Undergraduates are once again bustling in and out of Parsons Hall, our teaching laboratories are humming with activity, our research laboratories and write-up spaces are decorated with graduate students both day and night. The fall season is a special time, one of renewal and tradition. We welcome the 2016-2017 academic year with excitement, anticipation, and a few butterflies in our stomachs, just as you welcomed your first year in the Department a few years ago. The Department is as diverse, energetic and central to the University's mission as ever before. We know that we wouldn't be where we are now, or where we are headed, if you had not laid the foundation. Please stay in touch. Give us an update. Tell us how you're doing. Even better, plan a visit and walk the storied hallways of Parsons Hall once again! We look forward to hearing from you, or seeing you, very soon.

Glen Miller, Chair

Meet Our Lecturer Faculty



Lecturer Faculty Dr. Sarah Skraba-Joiner (left) and Dr. Kathy Winans (right)

In 2015, the Chemistry Department hired a new Lecturer and Director of Organic Laboratories, Dr. Sarah Skraba-Joiner. Dr. Skraba-Joiner completed her PhD in 2015 working with Professor Richard Johnson. Her work included the synthesis of polycyclic aromatic hydrocarbons and a study of their acid catalyzed rearrangements using both experimental and theoretical approaches. In her current position as Lecturer Faculty, Sarah teaches the one semester Organic Chemistry course, CHEM 545, and oversees all of the Organic Chemistry Laboratories (~500 enrollments per academic year!). Dr. Kathy Winans is a Senior Lecturer Faculty member in the Department. She received her PhD in Chemistry from the University of California Berkeley in 2001 where she applied organic synthesis to the study of *O*-linked protein glycosylation. Dr. Winans has been an excellent Lecturer in the Department since 2009 where she has taught a number of courses including General Chemistry I and II (CHEM 403 & 404), our one semester Organic Chemistry course (CHEM 545), Introductory Chemistry for the Life Sciences (CHEM 411) and Chemistry and Society (CHEM 411).

Welcome Laura & Stephanie...

The Department recently welcomed new Administrative Assistant Laura Bicknell to the family in August, 2016. Laura has quickly settled in and has begun to work on numerous projects including the Department's web page and administrative support for the publication *Organic Synthesis*. In April of 2015, Dr. Stephanie Labadie joined our ranks as General Chemistry Coordinator following a Ph.D. in Chemistry from Syracuse University in 2012 and postdoctoral training in Chemical Education and Analytical Chemistry at UNH. Stephanie has quickly made her mark by updating our General Chemistry laboratories to include new experiments with an emphasis on new techniques. Welcome Laura and Stephanie!



More Chemistry Dept. News & Notes



On her last day before retiring, Peg Torch posed with several highly appreciative faculty. Left to right: Emeritus Prof Denny Chasteen, Prof Art Greenberg, Assoc Prof Erik Berda, Emeritus Prof Gary Weisman, Assoc Prof Sam Pazicni, Peg Torch, Prof Sterling Tomellini, Assistant Prof Marc Boudreau, Assoc Prof Gonghu Li.

A Visit from Clarence Murphy...

Numerous alumni and special friends of the Department visited in recent months including Dr. Clarence Murphy (B.S. UNH 1955, M.S. UNH 1957, Ph.D. SUNY Buffalo 1960) who spent a very special afternoon with us in November, 2015. Clarence fondly remembered his interactions with Chemistry Department legends like Doc Iddles, Henry Kuivila, Gloria and Bob Lyle, (Albert) Fred Daggett, Helmut Haendler, Al Sawyer, Sandy Amell and numerous others. Clarence has had a distinguished academic career



Clarence Murphy

in his own right with positions at MIT, Ithaca College, Lehigh University, St. Anselm College and East Stroudsburg University. However, during his visit, his joy of chronicling the history of UNH Chemistry legends was most evident, and we ate it up. Among many interesting personal recollections were those related to Professor Henry Kuivila, Clarence's mentor at UNH. Kuivila was of Finnish descent but raised in Ohio. He received B.S. and M.S. degrees from Ohio State University and then traveled to Harvard for his Ph.D. (1948), studying under the legendary Paul Bartlett. Subsequently, Kuivila joined the faculty at UNH where he rose to the rank of full professor. Clarence described Kuivila as a hard-working, blue collar type of individual who demanded a lot

from himself and his students. He liked to pour instant coffee into freshly brewed coffee to make it stronger, and the first thing he would do every morning was prepare a cup of this ultra-strong coffee in the lab. Kuivila was fond of saying "I was a student at Harvard but I am not a Harvard man!" In 1964, Professor Kuivila moved to SUNY Albany where he was named Chair of the Chemistry Department. At UNH & Albany combined, he published over 100 papers, many of which had great impact in physical organic, free radical, organoborane and tin chemistries. A distinguished lectureship is named in his honor at Albany. Clarence left us with much more information, including that he was a student in the very first class ever taught by Emeritus Professor Paul Jones in 1955. Because of all the returning Korean War vets, Clarence was in fact the only person in the class younger than Paul. Clarence has written about several UNH chemistry legends including Charles James and Charles Parsons. To read more, go to the Department web page at ceps.unh.edu/chemistry and click on the HISTORY link on the left hand menu. Thank you for your visit Clarence!

Chemistry Dept. News and Notes...

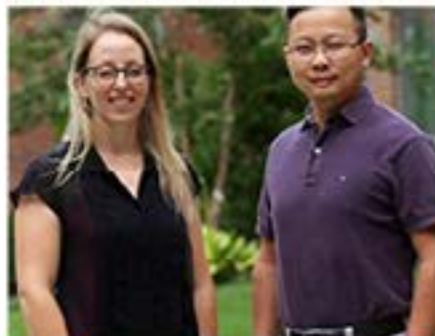
Two New Faculty Searches Are Underway: The Department of Chemistry has been granted permission to seek two new outstanding faculty members with anticipated start dates of August, 2017. The new faculty searches began in September, 2016 with advertisements in C&E News, among other places. We are seeking exceptional faculty with expertise in Analytical Chemistry, broadly defined, and Physical/Theoretical Chemistry with interests in macromolecular sciences. As always, successful candidates will not only show great promise as nationally and internationally recognized research leaders in their respective fields, but they must also demonstrate promise as first class instructors for our chemistry courses, both large and small. Professors John Tsavalas and Rudi Seitz will be chairing the Physical/Theoretical and Analytical Search Committees, respectively. We'll keep you updated on our progress...



L to R: Peg Torch, Amy Lindsey and Tom Harris

Happy Retirements Peg, Amy & Tom: In bittersweet fashion, the Department wished Peggy Torch, our long-time Administrative Assistant, a happy retirement effective July 1, 2016. Peg was the friendly face that greeted students as they entered the Chemistry Office, universally helpful to one and all, always positive and fiercely loyal to both the Department and the Pittsburgh Steelers. Despite the latter shortcoming ☺, Peg made the Department a better place. In 2015, the Department also wished Dr. Thomas Harris and Amy Lindsey happy retirements. Tom taught our one semester Organic Chemistry course (CHEM 545) and was the Department's first Director of Organic Chemistry Laboratories. He brought a wealth of industrial (Bristol-Myers Squibb) and academic experience to the job and helped us to define proper organic chemistry instructional laboratory design and safety. Amy worked as the General Chemistry Coordinator for many years, keeping our CHEM 403, CHEM 404 and CHEM 405 laboratories running smoothly. She worked closely with our General Chemistry instructors and provided training and oversight to our General Chemistry Teaching Assistants. We miss you Peg, Tom and Amy and wish each of you a happy, healthy and long retirement!

Movin' On Up: Professor Charlee (Chuck) Zercher has been on loan to the College of Engineering and Physical Sciences Dean's Office for the past 2.5 years where he has been serving as Associate Dean. In the summer of 2016, CEPS Dean Samuel Mukasa moved to the University of Minnesota and Chuck was named Interim-Dean of CEPS. During a recent conversation with Chuck, it is surmised that the biggest difference between his Associate Dean and Interim-Dean positions lies in the people that he encounters on a daily basis. As Associate Dean, Chuck spent much of his time helping troubled students, including those on the verge of exclusion from the University. As Interim-Dean, Chuck spends most of his time with easy-going, never troublesome faculty! Congratulations Chuck.



Large Grant Awarded to UNH Chemistry Faculty: UNH Chemistry Assistant Professor Christine Caputo and Associate Professor Gonghu Li recently received a highly competitive award from the U.S. Department of Energy's Experimental Program to Stimulate Competitive Research (EPSCoR). Their award totals \$598,335 for a project designed to convert sunlight into liquid fuels. "This award is a great accomplishment that demonstrates the competitiveness of energy research being conducted by our faculty," said Jan Nisbet, Senior Vice Provost for Research. "It also highlights the importance of collaboration in expanding our ability to explore complex problems." The DOE EPSCoR program granted just 12 awards and supports partnerships in energy-oriented research between faculty members from the 25 states that receive EPSCoR funding and scientists at the Department of Energy's federally funded research and development centers. Professors Caputo and Li will collaborate with scientists from Argonne National Laboratory in Illinois during their research. "In this project we hope to convert sunlight, carbon dioxide, and water into a liquid fuel," says Dr. Caputo. "This is called a 'solar fuel' and the process is often referred to as 'artificial photosynthesis' because it mimics the fuel forming reaction carried out in plants." Congratulation Gonghu and Christine!

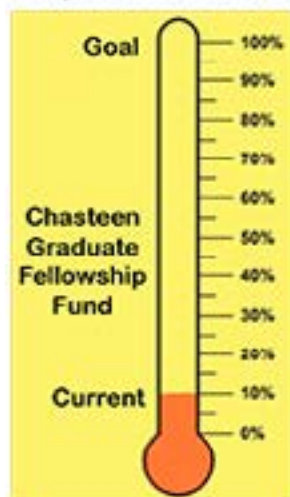
Undergraduate Research Opportunities Abound: One of the mainstays in the Department continues to be Undergraduate Research. UNH chemistry undergraduate students routinely participate in research projects under the tutelage of faculty and graduate students. And they aren't waiting until their senior year to get started. A variety of funding opportunities enable undergraduates to jump start their research careers. As one such example, meet Jennifer Chouinard who received a Summer Undergraduate Research Fellowship (SURF) award from the UNH Hamel Center for Undergraduate Research so that she could conduct research in the group of Associate Professor Erik Berda during the summer of 2016. Jen worked on the polymerizations of methyl methacrylate, furfuryl methacrylate and maleimide methacrylate. She made different polymers by incorporating each monomer at different percentages and studying their intramolecular cross-linking abilities via Diels-Alder reactions. She will continue her research this academic year by exploring the reversibility of these reactions and their utility for producing single-chain nanoparticles.



2016 Chemistry Awards Ceremony: Each May, the Department pauses to recognize excellence in our students. The Chemistry Awards Ceremony is a wonderful tradition that ties together multiple generations of UNH Chemistry students. That was especially true this year as two new awards were made by Mr. Fran Edwards. The first award, the George E. and Jeanette L. Lambert Chemistry Fellowship, was established by Fran's wife, Dr. Gail J. Lambert-Edwards, in honor of her parents who played such a large role in her education. Gail completed her Ph.D. at UNH in 1972 working with Emeritus Professor James Morrison. The 1st recipients of the award are two of our finest graduate students, Holly Guevara and Christian Tooley. Upon his wife's recent passing, Fran established a second award in her name, the Gail J. Lambert-Edwards, Ph.D. Memorial Chemistry Fellowship, and the 1st recipients are another pair of excellent graduate students, David Danico and Sean Dinneen. These two endowed awards are now a lasting, annual reminder of Gail, her parents, and Fran. Their accomplishments, contributions and generosity toward the Department are greatly appreciated and will be shared annually with our Chemistry family. We'd love to see you at our next Awards Ceremony. Check the Department webpage this winter to see details about the May date, time and location.

New Chasteen Fund...

An anonymous donor has just established the Chasteen Graduate Fellowship Fund in honor of **Emeritus Professor N. Dennis Chasteen**, Prof. Chasteen who retired in 2008 after 36 years of service at UNH where he was a prolific researcher and an exceptional teacher. The donor will match all contributions 1:1 up to \$100,000 (meaning a total of \$200,000 for the fund). Contributions to this endowment will meet



a critical need by providing summer support for current M.S. and Ph.D. students in all branches of chemistry. Please help UNH Chemistry remain

competitive with our peer institutions by providing increased summer support for our graduate students. To date, we have collected 10% of our \$200,000 goal. To donate to this worthy fund, see ceps.unh.edu/chemistry/giving-chemistry. Checks made out to "Chasteen Graduate Fellowship Fund" can also be sent to **Ms. Cindi Rohwer**, Manager, Dept. of Chemistry, University of New Hampshire, 23 Academic Way, Durham, NH 03824. Thank You!



Emeritus Prof.
N. Dennis Chasteen

Spotlight on Donors...

The *LaMattina Family Graduate Organic Chemistry Research Fellowship* and the *LaMattina Family Graduate Lectureship* were established through the generosity of **Dr. John L. LaMattina** (Ph.D. UNH 1975) and **Mrs. Mary Boyle LaMattina** (M.A.Ed. UNH 1974), long standing, generous friends of the Department. John received his B.S. at Boston College before joining UNH in 1971 for his Ph.D. working with **Professor Bob Lyle**. After UNH, he attended Princeton as an NIH Postdoctoral Fellow. He

joined Pfizer Inc. in 1977 where he tackled new therapeutic agents for gastrointestinal disorders and asthma. He progressively held positions of increasing responsibility including Vice President for US Discovery Operations, Senior Vice President of Worldwide Discovery Operations, Senior Vice President of Worldwide Development, and President, Pfizer Global Research & Development. Mary earned her Bachelor of Arts magna cum laude in Elementary Education from Notre Dame College of New York prior to her Master of Education in Reading at UNH. After a distinguished career in education, she retired from Three Rivers Community College in Norwich, CN where she served as Chair of the Humanities Department. John and Mary LaMattina live in Stonington, CN.



Join Us October 22 for NESACS...

We are hosting the Fall, 2010 Meeting of the New Hampshire Area of the Northeastern Section of the American Chemical Society (NESACS) on Saturday, October 22 from 10 am to 3 pm & YOU are invited. See the renovated Parsons Hall and meet old friends. Register on-line by October 14 for \$15 at <http://acssymposium.com/paypal-gms.html> and then join us at Parsons Hall. Light refreshments at 10 am will be followed by a keynote address by **Dr. James Cameron** of Dow Electronic Materials at 11 am.