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Clare Boothe Luce Scholars Graduate in Chem



Claypool shows
off the fruits of
research.

Two graduating CSB seniors have benefited from a scholarship that aims to increase the participation of women in STEM research. Elle Bartlett and Kenzie Claypool are chemistry majors who were accepted into the Clare Boothe Luce (CBL) Scholarship program during their time here. Successful student applicants had to make a case for how the scholarship could impact their career in STEM.

Bartlett is appreciative of the opportunity. "The CBL

scholarship and scholars program enabled me to pursue undergraduate research uninhibited through its generous support," she said. "I attribute a large portion of my intellectual and creative growth in this time to my participation in this program and my fellowship with the other CBL scholars."

CSB Chemistry's Dr. Annette Raigoza became involved in the program when she was invited by Jim Crumley (physics), Kris Nairn (math) and Imad Rahal (computer

science) as they applied for a grant from the Henry Luce Foundation. The trio had been funded on an earlier CBL award and wanted to expand the scope and impact of the program on campus the second time around. Raigoza explained that the funds were used to support research, materials and supplies, and travel to conferences.

Kenzie Claypool used travel funds to attend the fall meeting of the American Chemical Society. "It has been a really great opportunity to have while at CSB," said Claypool. "It allowed me opportunities that probably would not have been possible without it." Claypool also translated the research experience on campus into an internship at Sherwin Williams. In a similar way, Bartlett was able to leverage her experience for an NSF-REU program at University of Kansas last summer.

Raigoza stressed the importance of interdepartmental endeavours like this one. "Collaborative grants like this are tremendously important as they help unite resources for a common goal. We wanted to increase the support for women

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Louwagie Finds Rewards in a Career in

If you've been browsing issues of *Attorney at Law Magazine, Minnesota Edition*, you may have come across a familiar face lately. Nate Louwagie, CHEM '11, was recently featured among Next Generation Attorneys, 2021. Louwagie is an associate attorney at Carlson Caspers, a major intellectual property litigation and counseling firm in Minneapolis. Louwagie represents clients in patent disputes, typically when one company accuses another of infringing its patents.

"I manage cases from the first cease and desist letter all the way through jury trials," he explained. "This includes engaging in discovery, working with expert witnesses, and writing briefs." Louwagie enjoys the diversity of tasks he may do from day to day. One day he may take depositions to learn about the technology involved in a case. Other days he may write briefs explaining to judges why the law supports his client.

One of Louwagie's favorite things to do is talk to people, which makes law a good fit for him. Patent lawsuits require a lot of

teamwork and "deep thinking about case strategy", he says, so he is constantly collaborating with other lawyers at his firm. That's in addition to time spent discussing matter with experts and even opposing lawyers as they work to find a solution to a case. Between that and the fact that he feels he is constantly learning about new technologies, the job provides Louwagie with plenty of stimulation.

Despite the demands of his profession, Louwagie still manages to have a normal family life. He has two daughters and spends a lot of time with them. Whenever they can, his family heads to the cabin.

Louwagie worked hard to get where he is. His first job after graduating from CSB/SJU was at Medtronic, where he did research on battery chemistries. On the side, he studied and passed the patent bar exam on his own. Shortly afterward, he enrolled in law school at the University of Minne-



Louwagie and daughters

sota and went to Carlson Caspers immediately after graduation.

His advice to students interested in law is to start talking to lawyers. He stresses the importance of networking in the field. Despite the costs of law school, there is strong earning power at the other end. Nevertheless, he points out that his firm sponsors a Diversity and Inclusion Scholarship for law students: <https://www.carlsoncaspers.com/diversity-and-inclusion/diversity-scholarship-program/>.

Our First CBL Scholars

(Continued from page 1)

in fields where they are underrepresented and ensure that they had access to meaningful research experiences."

That feeling of unity trickled down through the cohort CBL Scholars, providing another valuable aspect of the experience. As Bartlett summarized, "I am grateful to have been a part of an outstanding group of like-minded women."

Both students will continue to do work in chemistry after graduation. Claypool has accepted a position with HB Fuller in the Twin Cities. Bartlett will be pursuing graduate study in computational chemistry.



Postcards from Study Abroad



Katie Brewer (lft), CHEM '23 at the Parthenon during Athens Study Abroad.



Gabi Lott (rt), BCHM '22 at the Tower of London during London Study Abroad.

Awards Season in ASC

The CSB/SJU Chemistry Department has announced its annual student awards for Academic Year 2021-22.

The American Institute of Chemists Awards went to **Anna Nguyen, Bchm '22** and **John Cerritelli, Chem '22**. The award is given to the outstanding seniors from CSB and SJU who will pursue a career in a field related to chemistry.

Mary Ludwig, Bchm '23 was selected for the **S. Rogatia Sohler Award** for an outstanding CSB junior. **Jacob Spring, Bchm '23** won the **Glen Arth Award** for an exceptional SJU junior.

Some awards represent proficiency in specific domains of chemistry. The Senior Inorganic Award, for a student who has shown professional interest in the field, was given to **John Cerritelli, CHEM '22**. **Kenzie Claypool, CHEM '22** was selected for the Senior Organic Award. The Senior Physical Chemistry Award went to Elle Bartlett, **CHEM '22**.

The Junior Analytical Chemistry Award was given to **Sawyer Schugel, CHEM '23** and **Isabelle Schmelzer, BCHM '23**.

The **Rick Jochman Award** for proficiency in organic chemistry went to **Sophia Anderson, Bchm '24** and **Dominic Amon, Chem '24**.

An award for Distinction in the Reactivity Sequence was presented to **Equoia Gibson, CHEM '24**; **Mary Ludwig; Olivia Thompson, BCHM '24**; **Ryan Chiu, BCHM '23**; **Will Mattock, BCHM '23** and **Ryan Thissen, BCHM '24**.

Other awards recognized proficiency in the lab. **Teniesha Ferguson, BCHM '23** earned the **F. Matthew Kiess Award** for laboratory skill. **Katie Brewer, CHEM '23** was selected to receive the **F. John Klassen Award** for summer research.

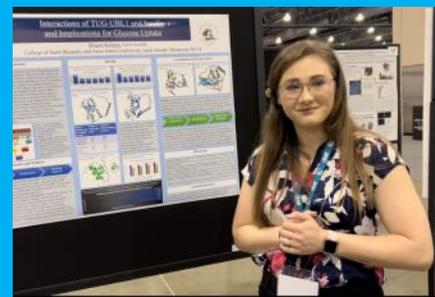
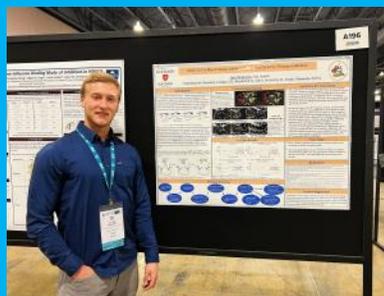
In addition, the award for Outstanding Teaching Assistant went to **Megan Kohout, CHEM '22**. The Departmental Service Award was presented to **Zeke Pena, CHEM '22**.

Students Present Research at National Conferences



Left: **Elle Bartlett, CHEM '22**; **Alex Host, BIOL '23**; **Kenzie Claypool, CHEM '22**; **Anna Nguyen, BCHM '22** at the 262nd ACS National Meeting & Exposition, Atlanta, GA, Aug 22- 26, 2021.

Below: **Jacob Minkkinen, BCHM '23** and **Megan Kohout, CHEM '22** presented at the 2022 ASBMB Annual Meeting in Philadelphia, PA, April 2- 5.



Raigoza Revitalized by Fall Sabbatical in Texas

Dr. Annette Raigoza spent summer and fall '21 in College Station, Texas, at Texas A&M University. She worked in the laboratory of James Batteas, an analytical/physical chemist, focused on investigating nanoscale materials and devices, nanotribology, and mechanochemistry.

"I primarily worked on a project using mechanical energy to drive the cycloaddition of C60 fullerenes to form dumbbell molecules attached through a 4-membered ring," explained Raigoza. "My goal was to form these dumbbells and pattern them on surfaces, as well as investigate their properties." She emphasized that mechanochemistry is tremendously important as it provides a solvent-free approach to synthesis. The goal was to make commercially unavailable products with interesting electronic properties.

The experience led to some valuable practical skills, said Raigoza. "I gained some experience using scanning tunneling

microscopy (STM) in vacuum and learning the ins and outs of working with ultra-high vacuum (UHV). I also helped troubleshoot an old STM that hadn't been used in a few years." She wanted to learn these skills because she recently obtained a UHV STM from collaborators at Notre Dame. She hopes to get that instrument up and running for use by research students at CSB/SJU.

Just working in a lab at a research institution offered benefits. "I learned quite a bit from the rest of the group who have vastly different interests than I do – nanotribology, understanding mechanochemistry at the atomic level, and large-scale patterning."

A Texas native, Raigoza also enjoyed the time at home. She was able to spend holidays with family in Odessa, about 400 miles from College Station, in west Texas.

Alum Notes *Reports from CSB/SJU Chem & Biochem Grads*

Dan Besemann, CHEM '96 has started a scientific-educational game company, Athenium Games. The company recently released a periodic table card game that can be played by elementary-aged children through adults.

Joe Gair, CHEM '12 has accepted a faculty position in chemistry at Michigan State University. Gair previously completed an NSF Graduate Fellowship at University of Chicago and post-doctoral study at Harvard.

Joe Pollei, CHEM '15 is finishing studies at Eastern Virginia Medical School. He will be moving to a residency program in internal medicine at Virginia Commonwealth University in Richmond, VA.

Hieu Van, BCHM '16 has graduated with a Ph.D. from M.D. Anderson cancer Center in Houston, TX and is doing post-doctoral work at NIH.



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Paul Kress, CHEM '16 finished a Ph.D. at Tufts and has a position at Hutchinson Technology in Eau Claire, WI.

Raymond Twumasi, BCHM '17, has accepted a Senior Scientist position with Pfizer. Twumasi has a Ph.D. in organic chemistry at the Ohio State University.

C.J. Pettinger, BCHM '17, has been accepted into the University of Wisconsin-Madison's Ph.D. program in Molecular and Environmental Toxicology.

Three recent CSB/SJU alumni published articles in prestigious Nature Journals this year. **Erica Sinner, CHEM '15** was second author on "Structure of a B12-dependent radical SAM enzyme in carbapenem biosynthesis", *Nature* 602, 343–348 (2022). This work was a collabora-

Peterson Published

Dr. Alicia Peterson has published work from her most recent sabbatical in William Arnold's lab at U MN. "Tracking Fluorine during Aqueous Photolysis and Advanced UV Treatment of Fluorinated Phenols and Pharmaceuticals Using a Combined ¹⁹F-NMR, Chromatography, and Mass Spectrometry Approach" appears in *ACS Environmental Gold*, <https://doi.org/10.1021/acsenvironau.1c00057>.

Kate Graham Retires from CSB/SJU

Dr. Kate Graham is retiring from teaching at the end of the 2021-22 academic year. Graham is a graduate of Montana State and Cornell University. She has had a very active career at CSB/SJU, conducting undergraduate research in natural products with dozens of students before turning to collaborative projects in organic methodology with Nicholas Jones. She was also a key player in making interactive learning strategies standard across the chemistry department, building on the work of previous department members dating to the 1980's. In addition, she assumed a cen-

tral role in developing an innovative chemistry curriculum starting in 2010. She was presented with the **Robert L. Spaeth Teacher of Distinction Award** in 2014. Her efforts to support the student experience led to well over a million dollars in grant funding to CSB/SJU. These awards supported new instrumentation as well as student research experiences and scholarships. Throughout her career, Graham has also been very active in a range of campus-wide committees. Graham plans to turn her talents to educational consulting.

McIntee Promoted

Dr. Ed McIntee has been promoted to full professor. The promotion recognizes McIntee's contributions to outstanding teaching, scholarship and service. He has mentored scores of students in the research lab and has served on a number of campus committees. McIntee teaches intro labs and lectures as well as upper-division courses including medicinal chemistry.