Periodic Times

Wittenberg University Department of Chemistry

VOL. 18

ACADEMIC YEAR 2024-2025

Top stories in this newsletter



Finster e-book published (p.2)



Jennifer Gile departs (p. 4)



Rachel Kaiser ('22) hired (p. 4)



Record no. of research students (p.6)



Class of 2025 graduates (p.8)

Chemistry Department Navigates Difficult Year for Wittenberg

In response to financial difficulties, the Wittenberg Board of Directors considered a number of cost-cutting measures in late summer 2024, resulting in loss of faculty and staff positions as well as the Languages and Music programs. As reported in our previous newsletter, our inorganic chemist position was vacated; it will not be filled in the foreseeable future. Our physical chemist, Ray Dudek stepped up to the challenge of teaching the inorganic chemistry course in the spring.

Though we lost no other staff positions, our laboratory coordinator Jennifer Gile took a position at pharmaceutical company Adare. Retired laboratory coordinator Richard York graciously filled in as interim, allowing lab to proceed as planned. We hired Rachel Kaiser ('22) who started in January. Both Jennifer and Dick have been invaluable in their willingness to consult with Rachel as needed. Administrative Assistant Mary Kelly now assists all departments in the science building (Chemistry, Math/Computer Science, Physics, Nursing, and the recently merged Biological and Environmental Sciences department).

Adding to these challenges, threats to campus forced a week of online teaching and cancellation of labs in September, with flashbacks to pandemic times.

In these difficult times, the support of our alumni and friends has proven invaluable. Read on to see the good news of the past year – including successful fundraising, alumni and student accomplishments, and a record number of summer research students.

Record-breaking Commit to Witt

Over \$1.1M was raised from 1,377 gifts on Wittenberg's annual giving day, "Commit to Witt", almost 40% higher than that raised on this day in 2024. Thank you to our alumni and friends for this critical support!

Per University policy, we will no longer report donor names in our newsletter. But we are pleased to report that the department continues to receive generous donations. Funds given explicitly to the Chemistry Department and our endowment earnings have been used this year to fund the summer research program, travel to conferences for presenting research, and \$102K in scholarships for needs-based Virginia E. Franta Chemistry Awards and twenty Chemistry Special Interest scholarship awards, including for four new students.

To contribute to the chemistry department and/or the Wittenberg Fund, <u>click here</u>

Or mail donations to:
Wittenberg Fund
Wittenberg University
PO Box 720
Springfield, OH 45504

Laboratory Safety for College Students Released as Free e-Textbook



Dave Finster and Robert H. Hill have published an electronic edition (third edition) of the safety textbook, *Laboratory Safety for Chemistry Students*. Alumna Tabi Thompson ('06) served as a copy editor for this edition. As reported by the American Chemical Society, "authors Dr. David Finster and Dr. Robert Hill Jr. have generously donated the 3rd edition to ACS, making the textbook accessible to the global chemistry community." The Chemistry Department continues to cover this book in all of our laboratory courses as an important part of our safety training. The electronic text features color photos and the ability for instructors to use an online quiz feature. See the ACS site for more details.

Students and Faculty Travel to Present Research Results

In spring 2025, six Wittenberg students and their research mentors traveled to three national conferences to present their summer research findings. Luke Teters ('25), Owen Gulvas ('27) and Kristin Cline attended Pittcon in Boston last March. Victoria Pipinich ('25), Annie Miloser ('25) and Ray Dudek traveled to the Spring 2025 meeting of the American Chemical Society in San Diego in March; Ray served as a poster session judge at the meeting. Paige Rudolf ('25), and Tasia Nall ('26) presented posters at the American Society for Biochemistry and Molecular Biology (ASBMB) National Meeting in Chicago in April, accompanied by Dan Marous and Margaret Goodman. Student travel was made possible by the Franta Fund for Chemistry. See p.10 for more photos.



Alumni and Friends Updates









Alumni panelists, left-toright: Jessica Harrah, Caitlyn Hum, Tom Mori, Jack Snider

The 2024 homecoming alumni panel included Jessica Harrah ('18, Chief Family Medical Resident, Ohio Health), Caitlyn Hum ('20, student at Kettering College PA school), Tom Mori ('13, Software Engineer, Gecko Robotics), Katie Robinson ('20, PhD student at Ohio State) and Jack Snider ('19, Scientist at Hikma Pharmaceuticals).

Katie Robinson ('20) presented a seminar to the department in November 2024 on her graduate work in Chemical Physics at the Ohio State University.

Russ Niksic ('96) is President & CEO of TRI-K Industries.

Jim Bolender ('88), Associate Provost for International Affairs at University of San Diego, is participating with the <u>Wittenberg Innovation Network (WIN) Foundation</u>, an independent foundation directed by a group of alumni owner-members. The foundation aims to "restore the University's financial health and advance Wittenberg's reputation" and is open to all Wittenberg alumni.



Kevin Bond ('14) started a new position as Program Leader - Expansion and Growth at Simtra BioPharma Solutions.

Chelsea (Horvath) Winter ('16) joined PPD, part of Thermo Fisher Scientific, as an Associate Project Manager in Central Labs.

Tara Shariff ('10) was promoted to Director, Business Insights, Solutions & Analytics at Hikma Pharmaceuticals.

Olivia Norbut ('24) is pursuing a Master of Science in Physician Assistant Studies at Ohio Dominican University

Rachel Kaiser ('22) was hired as the department's Laboratory Coordinator and University Chemical Hygiene Officer.

Tabi Thompson ('06) is working for the journal *Acta Biomaterialia* as a scientific editorial assistant. She also copyedited the 3rd edition of *Laboratory Safety for Chemistry Students* (see p.2).

Rachel Saylor ('10) and Lydia Kisley ('10) co-authored a paper "Super-resolution imaging reveals resistance to mass transfer in functionalized stationary phases" in *Science Advances*, 2025, 11 (7). Both attended the Midwestern Universities Analytical Chemistry Conference in Detroit last fall.





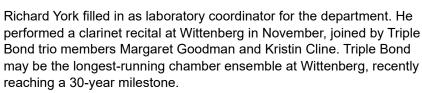
Left: Faculty and alumni at Homecoming Tailgate

Right: Rachel Saylor, Kristin Cline and Lydia Kisley at Midwestern Universities Analytical Chemistry Conference

Staff News, Publications and Presentations



Jennifer Gile, Wittenberg Laboratory Coordinator and Chemical Hygiene Officer since 2018, was hired by pharmaceutical company, Adare, in Vandalia, OH.







Rachel Kaiser ('22) joined the department as Wittenberg Laboratory Coordinator and Chemical Hygiene Officer in January.

Ray Dudek taught CHEM 321: Inorganic Chemistry in spring 2025.

Justin Houseknecht taught EDUC 280, Pedagogy for Learning Assistants, in spring 2025.



Workshop facilitation

Justin Houseknecht, *Active Learning in Organic Chemistry: Flipping without Video*, virtual, June 5, 2025.



Presentations

<u>Luke Teters</u> and Kristin K. Cline, *Determining Fluoride Content in Tea samples using Ion Chromatography*, Pittcon, Boston, MA, March 5, 2025, poster.

Owen Gulvas and Kristin K. Cline, *Investigating Variables in Soil VOC Detection with SPME-GC-MS*, Pittcon, Boston, MA, March 5, 2025, poster.

Kristin K. Cline, *Experiments that Teach Fundamental Lab Skills*, Kristin K. Cline, Midwestern Universities Analytical Chemistry Conference, Detroit, MI, October 4, 2024, oral.

<u>Victoria Pipinich</u> and Ray Dudek, "Analysis of Heavy Metals in Cocoa Powder and Dark Chocolate", American Chemical Society National Meeting, March 2025, San Diego, poster.

<u>Annie Miloser,</u> Jason Stallings, Katelyn Straw, Gosia Chwatko, "Creation of Degradable Plant Pots Using Bourbon Distillation Waste Products", American Chemical Society National Meeting, March 2025, San Diego, poster.

<u>Paige Rudolf</u> and Daniel Marous. "Screening Soil for Antibiotic-Producing Bacteria" Poster, American Society for Biochemistry and Molecular Biology National Meeting, Chicago, IL, April, 2025.

<u>Tasia Nall</u> and Daniel Marous. "Assessing the Impact of Biocides and Chelating Agents on Antibiotic Resistance in *E. coli*" Poster, American Society for Biochemistry and Molecular Biology National Meeting, Chicago, IL, April, 2025.

Muzyka, J.; Houseknecht, J. B.; Leontyev, A.; Welder, C. *OrganicERs: Increasing Evidence-Based Instructional and Assessment Practices in Organic Chemistry Courses Throughout the United States*. 2025 Transforming Institutions Conference, St. Louis, MO, June 9-11, 2025.

Leontyev, A.; <u>Houseknecht, J. B.</u> *OrganicERs: A Community of Practice for Organic Chemistry Instructors*. Bridging Organic Chemistry and Chemistry Education, virtual, May 6, 2025.

2025 Student Award Winners

Sartoris Award for Outstanding Senior Chemistry Major: Victoria Pipinich

Outstanding Senior BMB Major: Annie Miloser, Paige Rudolf

ACS Division of Biochemistry & Chemical Biology Undergraduate Award: Justin Katona

Patterson Award for Outstanding Junior Chemistry Major: Caitlyn Shelton

James T. Gregory Award: Annie Miloser Organic Chemistry Award: Cam Gladden

General Chemistry Award: Svetlana Daniels, Lexi Greer

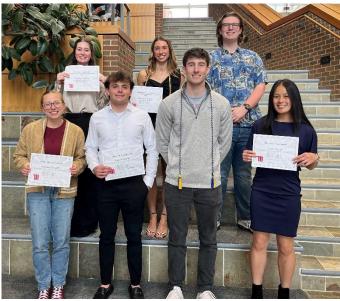
Franta Chemistry Interest Scholarship: Svetlana Daniels, Ian Dawson, Andrew Hibbitts, Teagan O'Connor, Lauren Pollock, Brendon Raggiunti Brown-Reid.

University Awards to Chemistry and BMB majors

M. Alice Geiger Award: Victoria (Pip) Pipinich

Presidential Scholar: Alexander Nemunaitis, Joshua Putka, Caitlyn Shelton

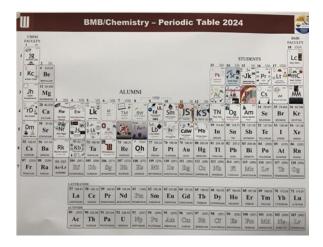


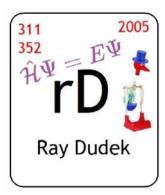


Left: BMB award winners Paige Rudolf and Annie Miloser; Right: Chemistry recognition, top: Caitlyn Shelton, Victoria Pipinich, Alex Callahan. Bottom: Svetlana Daniels, Cam Gladden, Luke Teters, Lexi Greer.

Second Chance to Make an Element

The Chemistry Department created a periodic table featuring elements to represent faculty, staff, students and alumni. If you wish to generate an element and be added to the periodic table, email Ray Dudek (rdudek@wittenberg.edu) for a template and instructions. We are (still!) hoping to get enough alumni to fill out the lanthanide and actinide sections of our periodic table.





Summer 2025 Research



Summer researchers, bottom, L-to-R: Abigail Brunelle and Bruce, Celeste Hartings, Sadie Trisel, Aubrey Tama, Griffin Howell, Ezekiel Forster; middle: Adam Brown, Josh Putka, Svetlana Daniels, Alex Couch; top: Owen Gulvas, Tasia Nall, Shannon Morrisey, Cam Gladden

Summer Researchers and their Projects

Name	Hometown	Major(s)	Summer Project
(class year) Adam Brown ('28)	West Chester, OH	Biology	Encapsulation and Controlled Release of Volatile Antimicrobial Agents Using Organic Gels
Abigail Brunelle ('27)	Pickerington, OH	ВМВ	Assessing Exam Content Before and After Active Learning Organic Chemistry Workshop 2021-2023
Alex Couch ('27)	Mount Vernon, OH	BMB	Impacts of Soil Use on Fungal and Bacterial Populations in Soil Microbiota
Svetlana Daniels ('28)	London, OH	ВМВ	Screening Soil for Antibiotic-Producing Bacteria
Ezekiel Forster ('27)	Clarksville, OH	ВМВ	Thermal Degradation-SPME-GC/MS of Polymers using Copper Wire as an SPME Fiber
Cam Gladden ('27)	Galena, OH	ВМВ	Experimental Development and Investigation of Antibiotic Resistance and Cross-Resistance in Escherichia coli
Owen Gulvas ('27)	Springfield, OH	Chemistry	Analysis of Modified Glassy Carbon Electrodes via Electrochemical Impedance Spectroscopy
Celeste Hartings ('27)	Tipp City, OH	BMB & Mathematics	Assessing Exam Content Before and After Active Learning Organic Chemistry Workshop 2021-2023
Griffin Howell ('27)	Zionsville, IN	Biology & Neuroscience	Investigating the Impact of N- acetylcysteine on Neurotransmitter Receptor Expression in Obsessive Compulsive Disorder Mouse Models
Shannon Morrissey ('26)	Springfield, OH	ВМВ	Analysis of Heavy Metals in Protein Powder with Atomic Absorption Spectroscopy
Tasia Nall ('26)	Indianapolis, IN	Chemistry	HPLC analysis of tRNA modifications in Yeast Cells
Josh Putka ('26)	Avon, OH	BMB & Mathematics	Developing a Laboratory Activity to Explore Synergy Between Traditional Antibiotics and Essential Oils
Aubrey Tama ('26)	Medina, OH	BMB	Misconceptions in Organic Chemistry I
Sadie Trisel ('27)	Jamestown, OH	Biology	Misconceptions in Organic Chemistry I

BMB Class of 2025



L-R: Derek Stinefield, Annie Miloser, Adam Arndt, Justin Katona, Paige Rudolf, Caroline Sproule, Grace Ralston, Abby Sphar, Alexa (Repp) Kraska

Chemistry Class of 2025



L-R: Luke Teters, Ethan Libby, Alex Callahan, Victoria (Pip) Pipinich

Post-graduation plans for our majors

Adam Arndt (BA, BMB) has not shared his plans with us.

Alex Callahan (BS, Chemistry) is searching for employment.

Justin Katona (BS, BMB) will attend Lincoln Memorial DeBusk College of Osteopathic Medicine.

Ethan Libby (BA, Chemistry and BS, Psychology) will pursue a doctorate in Psychology at Wright State University.

Annie Miloser (BS, BMB) will attend the graduate program in Chemical Engineering at the University of Kentucky.

Victoria Pipinich (BS, Chemistry) will attend the graduate program in Chemical Engineering at the University of Notre Dame.

CASS-1201S

Class logo by Victoria (Pip) Pipinich '25

Grace Ralston (BA, BMB) is applying to research positions.

Alexa (Repp) Kraska (BA, BMB and BS, Neuroscience) is attending medical school at University of Cincinnati College of Medicine.

Abby Sphar (BA, BMB) will attend Kettering PA school.

Caroline Sproule (BA, BMB) is working as a medical assistant and applying to PA school.

Paige Rudolf (BS, BMB) is seeking employment.

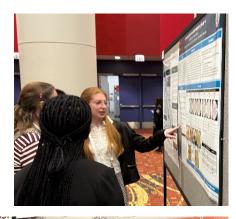
Derek Stinefield (BA, BMB and BS, Mathematics) has applied to graduate school to pursue a Master's degree in mathematics.

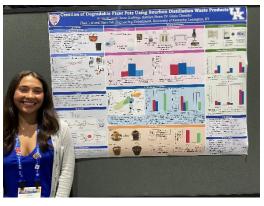
Luke Teters (BS, Chemistry) will attend graduate school in Chemistry at Eastern Tennessee State University.

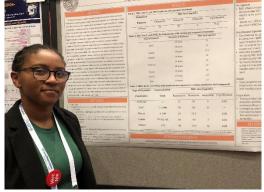


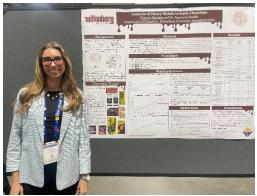
National Meetings

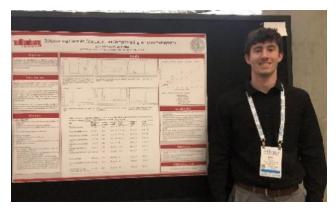




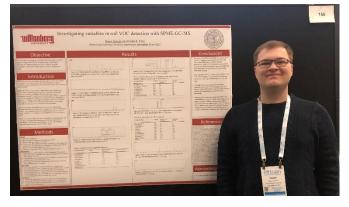








Top-to-bottom, left column: Annie Miloser ('25), Victoria (Pip) Pipinich ('25) and Ray Dudek at ACS in San Diego. Right column: Paige Rudolf ('25), Tasia Nall ('26) at ASBMB in Chicago, Luke Teters ('25) and Owen Gulvas ('27) at Pittcon in Boston.



Hope to see you at Homecoming! September 25-28, 2025

Click <u>here</u> for information and contact us if you can serve on the alumni panel











Wittenberg University Department of Chemistry

PO Box 720, Springfield, OH 45506 (937) 327-6435