

Periodic Times

Wittenberg University Department of Chemistry
Catalyzing Student Success

VOL. 16

ACADEMIC YEAR 2022-2023

Top stories in this newsletter



Lydia Kisley ('10)
delivers ACS Kavli
Lecture



Dept. Chair passes from
Houseknecht to Dudek.
(p.3)



Dan Marous granted
tenure & promotion (p.3)



BMB majors win Alma
Lux and Alma Mater
awards (p.4)



Class of 2023
graduates indoors (p.7)

Wittenberg Represented at the ACS Spring National Meeting

The Wittenberg Chemistry Department was well-represented at the Spring 2023 meeting of the American Chemical Society in Indianapolis in March. Lydia Kisley ('10) delivered the Kavli Emerging Leader in Chemistry Lecture, and four current students presented posters. Kisley is the Warren E. Rupp Assistant Professor of Physics at Case Western Reserve University. In her address, titled "Seeing the Molecular World of Materials: Single-Molecule Microscopy at the Crossroads of Chemistry," she described the importance of a good foundation in chemistry and shared a photo of our main classroom where she took general chemistry. Professors Ray Dudek and Dan Marous and four Wittenberg students attended the talk.

Students presented on their summer research mentored by Dan Marous, Kristin Cline and Ray Dudek. Student travel was made possible by the Franta Fund for Chemistry. See p. 10 for photos.

Chemistry Department Adjusts to Lower Enrollments

The Chemistry Department experienced for the first time in recent history a graduating class with no chemistry majors. Five Biochemistry/Molecular Biology (BMB) majors graduated in May 2023. With lower enrollments at Wittenberg particularly since the pandemic, fewer sections of lower-level chemistry courses have been taught. Our seminar program was altered significantly last year; seminar was taught only in the spring semester, and there were no outside speakers. The future is looking brighter, and we are pleased that the incoming class includes 19 students with an interest in chemistry, 14 of whom received a Chemistry Special Interest (Franta Scholar) Award. We have returned to a two-semester seminar course this year.

We have increased our recruitment efforts, hosting special visit days for prospective students as well as for a high school chemistry class, increasing our scholarship offers (Franta Scholar program), and participating in Wittenberg's First Year Research Assistant (FYRA) program. We urge our alumni to help us in our recruiting efforts! Please reach out to the department if interested.

Thank you to our Donors!

Per University policy, we will no longer report donor names in our newsletter. But we are pleased to report that department continues to receive generous donations. Funds given explicitly to the Chemistry Department and our endowment earnings have been used this year for new gas chromatographs and an oscilloscope for the teaching lab, to fund the summer research program, for 14 students who have received Chemistry Special Interest scholarship awards, and \$39 K for nine need-based Virginia E. Franta Chemistry Awards.

To contribute to the chemistry department and/or the Wittenberg Fund, [click here](#):

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

Alumni and Friends Updates

The department was saddened to learn of the death of Mary Lou Sartoris, wife of Professor Emeritus Nelson Sartoris.

The 2022 Chemistry and Biochemistry/Molecular Biology (BMB) alumni panel included Reyna Ayala Montes ('20), Lucy Bates ('22), Maggie Cole ('16) and Nick Weissman ('21).

Douglas Arbuckle ('82) recently retired from teaching high school Chemistry, and a long career in industry, consulting, and franchising. He resides in Medina, Ohio, and now enjoys bartending at a craft brewery.

Kia Armstrong Bryant ('05) was selected as the 2022 Lyman T. Johnson Torch of Excellence Award Winner by the University of Kentucky College of Public Health.

Neil Anderson ('10) has started a new position as Technical & Regulatory Reviewer - Global Quality & Accreditation at BSI.

Lucy Bates ('22) is pursuing a PhD in the Pathobiology and Molecular Medicine program at the University of Cincinnati.

Linda Crosby ('69) retired from Charkit Chemical Co after 39.5 years, serving most recently as Executive Vice President, Sales.

Lydia Kisley ('10) was named a recipient of a 2023 Cottrell Scholar Award from the Research Corporation for Science Advancement.

Emily Duderstadt ('16) is a Scientist at Procter & Gamble.

Hope to see you at Homecoming!

Click [here](#) for information and see p. 6 about the new Launch event that will replace our alumni panel this year.

Staff News, Presentations and Publications



L-R: Ray Dudek, Jennifer Gile, Stephanie Eveland Parrott, Justin Houseknecht, Kristin Cline, Daniel Marous

Dr. Ray Dudek attended the ACS Chairs meeting in Washington, D.C. in June. He has been appointed department chair for 2023-2026.

Dr. Stephanie Eveland Parrott led Girl Scouts Science Night in October 2022. The theme was “Spooky Science”.

Dr. Justin Houseknecht completed his second three-year term as department chair.

Dr. Kristin Cline was appointed to the 2025 Instrumental Analysis Examination Committee of the ACS Division of Chemical Education’s Examinations Institute.

Dr. Daniel Marous was tenured and promoted to Associate Professor by Wittenberg’s Board of Directors.

Workshops

Active Learning in Organic Chemistry. Justin Houseknecht, University of North Dakota, June 12-16, 2023.

Publications

Kristin Cline, Card Game for Instrumental Analysis. *Analytical Sciences Digital Library*, ASDLib.org, 2023.

Sinner, E.K., Li, R.F., Marous, D.R., and Townsend, C.A. ThnL, a B12-dependent radical S-adenosylmethionine enzyme, catalyzes thioether bond formation in carbapenem biosynthesis. *Proc. Natl. Acad. Sci. USA*, 2022, 119 (34), e2206494119.

Presentations

Kristin K. Cline, *Playing Cards for Instrumental Analysis Exam Review*, Midwestern Universities Analytical Chemistry Conference, Cincinnati, OH, October 28, 2022. oral.

Parker Hayes and Kristin K. Cline, *Analysis of Organic Samples Using Headspace and Solution Methods with Gas Chromatography-Mass Spectrometry*, American Chemical Society National Meeting, Indianapolis, IN, March 2023. Poster.

Annie Miloser and Ray Dudek, *Extraction of Oleuropein from Olive Leaf Nutritional Supplements and Oleuropein Levels Created by White Fringe Trees*, American Chemical Society National Meeting, Indianapolis, IN, March 2023, Poster.

Emma Lindsey and Daniel Marous. *Exploring the Activity and Synergistic Properties of Essential Oils and Antibiotics*, American Chemical Society National Meeting, Indianapolis, IN, March 2023, Poster.

Maya Hagander and Daniel Marous. *Development of a Model for Bacterial Resistance to Antibiotics*, American Chemical Society National Meeting, Indianapolis, IN, March 2023, Poster.

Justin Houseknecht, *Just-in-Time Teaching and Specifications Grading in Organic Chemistry*. University of Cincinnati (virtual), November 29, 2022.

Justin Houseknecht, *Specifications Grading Across the Disciplines*. Royal Military College of Canada (virtual), October 27, 2022.

2023 Student Award Winners

Outstanding Senior BMB Major: Maya Hagander and Alex Zysik

Patterson Award for Outstanding Junior Chemistry Major: Paige Kaiser

James T. Gregory Award: Parker Hayes

Organic Chemistry Award: Nick Brown and Paige Rudolf

General Chemistry Award: Josh Putka and Matt Selan

Franta Chemistry Interest Scholarship: Neil Kettels and Aubrey Tama

University Awards to Chemistry and BMB majors

Seniors with 4.0 GPA: Maya Hagander and Alex Zysik

Martin Luther King Jr. Award: Maya Hagander

Presidential Scholars: Olivia Norbut, Paige Kaiser, Emma Lindsey

Alma Lux: Branden Nicholas

Alma Mater: Parker Hayes



Top (L-R) BMB majors (and lab partners) Branden Nicholas and Parker Hayes—Alma Lux and Alma Mater recipients at the Honors Convocation. General Chemistry award winners Matt Selan and Josh Putka; Patterson award winner Paige Kaiser.

Bottom: Organic Chemistry Award winners Nick Brown and Paige Rudolf. Gregory Award winner Parker Hayes.

Summer 2023 Research

Summer researchers, top row, l-to-r: Paige Kaiser, Branden Nicholas, Andy Dozal. Middle row: Derek Stinefield, Annie Miloser, Victoria Pipinich, Paige Rudolf.

Bottom row: Grace Carter, Maddie Pawlak, Alex Callahan.



Name (class year)	Hometown	Major(s)	Summer Project
Alex Callahan ('25)	Beavercreek, OH	Chemistry & Physics	The Effects of Doping Corundum with Different Post Transition and Alkaline Earth Metals
Grace Carter ('24)	Columbus, OH	Educational Studies	Outcomes of the Active Learning in Organic Chemistry Workshop
Andy Dozal ('26)	West Carrollton, OH	BMB & Spanish	Testing for Antibiotic-Producing Bacteria in Soil
Paige Kaiser ('24)	New Philadelphia, OH	Chemistry	Detection of Volatile Organic Compounds in Soil Using Solid-Phase Microextraction and Gas Chromatography/Mass Spectrometry
Annie Miloser ('25)	Saline, MI	BMB	Comparing Fluoride Ion Selective Electrode, Fluorescence Spectrophotometry, and Solid Phase Extraction to Analyze Fluoride in Tea and Mouthwash
Branden Nicholas ('24)	Oak Park, MI	BMB & Psychology	Analysis of Farmland Soil under Different Tilling Conditions
Maddie Pawlak ('26)	Fort Wayne, IN	BMB	Seasonal Production of Oleuropein in White Fringe Trees
Victoria Pipinich ('25)	Fort Worth, TX	Chemistry	Analysis of Heavy Metals in Dark Chocolate
Paige Rudolf ('25)	Saint Paris, OH	BMB	Examining the Antibacterial and Synergistic Effects of Antibiotics, Essential Oils, and Essential Oil Components against <i>E. coli</i> and <i>S. epidermidis</i>
Derek Stinefield ('25)	Alexandria, IN	BMB & Mathematics	Symmetry of Doped Corundum Supercells: A Computational Investigation of Tin Doping

Wittenberg Homecoming 2023 Networking Sessions Planned for October 6

Homecoming at Wittenberg is set for October 6-8, 2023. This year, a new event (“Launch”) for career networking is planned for alumni, current students and parents. Our usual Chemistry/BMB Alumni Panel will merge into this event. Panels will be oriented around “career clusters”, including one on health/wellness and one on science/environment. The department has submitted alumni names to the organizers for these two panels. The Launch event schedule is:

Friday, October 6

4:00 – 6:00 p.m. 6:00 – 6:45 p.m. networking

Location: Barbara Deer Kuss Science Center

Welcome will be held in Bayley Auditorium, Break will be held in Hobson Atrium, Cluster sessions will be held in classrooms

Schedule:

4:00 – 4:15 – Welcome from Provost Brian Yontz & Career Development in Bayley Auditorium

4:15 – 5:00 – Session 1 (all clusters available)

5:00 – 5:15 – Break, network with alumni, and enjoy refreshments in Hobson Atrium

5:15 – 6:00 – Session 2 (all clusters available)

6:00 – 6:45 – Post-session networking and refreshments in Hobson Atrium

Break area

Alumni who want to promote internships to students are invited to set up in the break area and participate in sessions. The break area will include refreshments and a bar.

Registration (due Sept 18) and other information can be found at this [link](#).

Wittenberg Painters Inspire Chemistry Office Renovation

One day in July, when the Chemistry Department staff at Wittenberg learned that painters from our Physical Plant staff were working in the building, several chemists with apparently too much time on their hands started scheming about how we could accomplish a long-held vision of a renovated office space. Soon, the counters and desk that had served our former administrative assistants for decades were gone, and work orders were submitted for painting and floor cleaning. The space is considerably more inviting thanks to our highly-skilled Physical Plant staff and is often populated with p-chem students working on lab calculations and organic students taking quizzes.



Class of 2023



BMB graduates, left-to-right: Maya Hagander, Mya Wolfe, Aaron Craddock, Alex Zysik, Jimmy Pedersen



BMB Graduates

Post graduation plans for our Biochemistry/Molecular Biology majors:

Aaron Craddock has plans to attend optometry school.

Maya Hagander is attending Medical School at the University of Virginia.

Jimmy Pedersen is a Quality Control Chemist at Luminex Biotech co. in Northbrook, IL.

Mya Wolfe is working as a postbaccalaureate researcher at the National Institutes of Health and plans to apply to graduate school.

Alex Zysik is attending dental school at The Ohio State University.



BMB graduates Maya Hagander and Mya Wolfe with families and members of the President's party

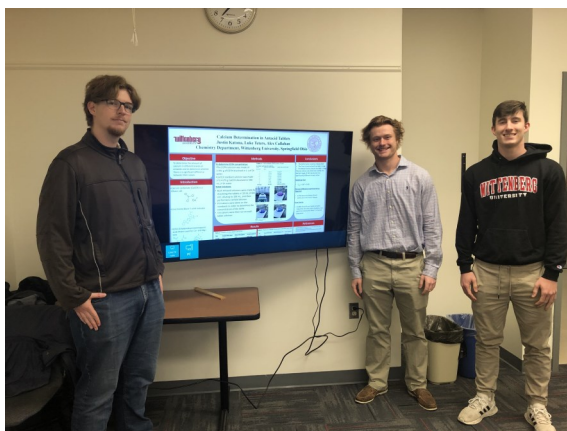
New Equipment and Renovated Spaces



Left: New Gow Mac gas chromatographs (yes, they look nearly identical to the old ones). Right: New digital oscilloscope for the physical chemistry lab—we finally have no need for floppy disks in the department.

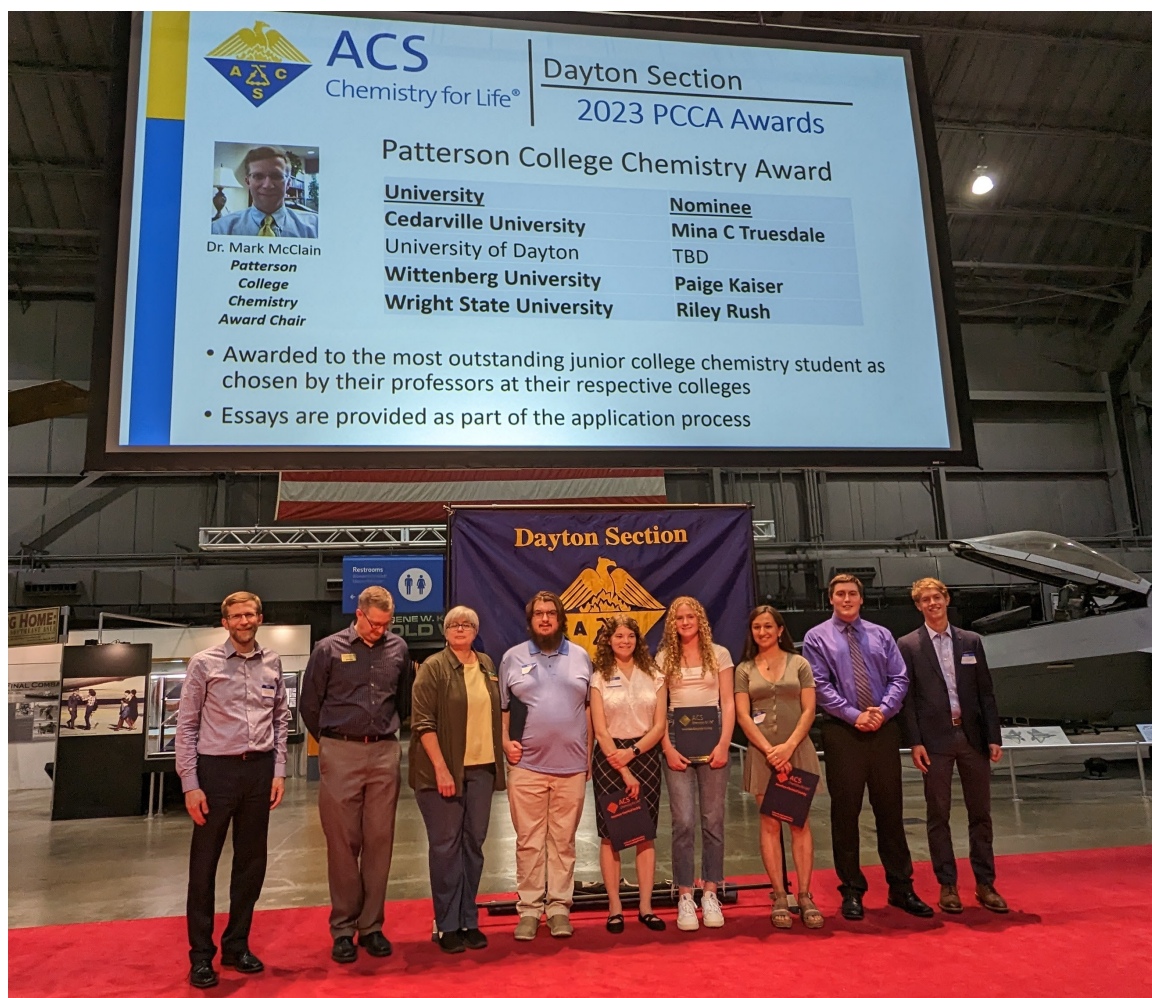


Left: Newly refurbished Chemistry office area—a popular spot for students seeking help or candy.



Right: New monitors in our lounge and classroom were used for the Analytical Chemistry poster session.

Local ACS Meeting



ACS
Chemistry for Life®

Dayton Section
2023 PCCA Awards

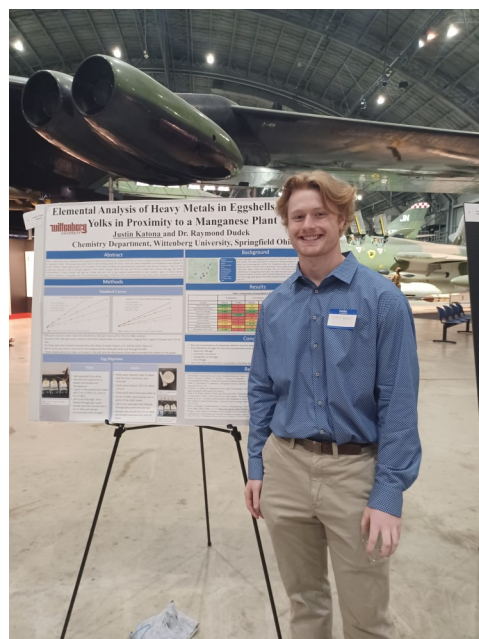
Patterson College Chemistry Award

<u>University</u>	<u>Nominee</u>
Cedarville University	Mina C Truesdale
University of Dayton	TBD
Wittenberg University	Paige Kaiser
Wright State University	Riley Rush

Dr. Mark McClain
Patterson College Chemistry Award Chair

- Awarded to the most outstanding junior college chemistry student as chosen by their professors at their respective colleges
- Essays are provided as part of the application process

The Dayton Section of the ACS hosted a poster and awards session at the National Museum of the United States Air Force. Above: Patterson Award winners (Paige Kaiser is sixth from the left) and faculty; Right: Justin Katona presents a poster on



ACS Spring 2023 National Meeting



Lydia Kiskey delivers the Kavli address at the ACS National Meeting in Indianapolis. Note the photo of our classroom on the screen.

To include your

Students attending the ACS National Meeting: Emma Lindsey, Maya Hagander, Parker Hayes and Annie Miloser. Each student presented a poster at the meeting.

updates in the next department newsletter or to



To include your updates in the next department newsletter, send information to Mary Kelly at kellym21@wittenberg.edu

Check out the department postings on [Youtube](#), [Instagram](#) and [Facebook](#).



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