

COLLEGE OF SCIENCE AND TECHNOLOGY

CHEMISTRY

NEWSLETTER

Millersville University, Dept. of Chemistry ♦ <http://www.millersville.edu/chemistry/> ♦ Fall 2024

Greetings from the Chemistry Department! We are very excited to report that we had another busy and successful year! The department completed a very strong 5-year program evaluation. We would also like to share great news from faculty, students, and alumni activities and achievements!

Murley Undergraduate Research Fellowship – Summer 2024

We are pleased to announce that this is the 6th consecutive year of the Murley Summer Undergraduate Research Fellowships! In the summer of 2024, the Murley Summer Undergraduate Research Fellowship was awarded to two top Millersville Chemistry applicants. **Amber Nickey & Jessica Rarick** carried out intensive summer research with Millersville Chemistry Faculty thanks to the generous support of Ms. **Karen Murley**. **Amber Nickey** did her research with **Dr. Kristen Baker** on “The Synthesis of Benzisothiazole” & **Jessica Rarick** did her research with **Dr. Steven Kennedy** on “Vulgarin Isolation for Semisynthetic Derivatization Studies”.



Murley Summer Fellowship - 2024

Jessica Rarick, Ms. Karen Murley, Amber Nickey (left to right)

MU Chemistry Faculty Milestones & Achievements!



This year, **Dr. Daniel Albert**, was voted the MU Educator of the Year! ***Congratulations Dr. Albert!***

Dr. Melissa Mullen Davis was granted tenure and was promoted to the Associate Professor Rank this year. ***Congratulations Dr. Mullen Davis!***

*Dr. Melissa Mullen Davis,
Associate Professor*

*Dr. Daniel Albert
Educator of the Year*



Congratulations to Dr. Edward Rajaseelan, Dr. Daniel Albert & Aaron Maynard (MU-2024):

- Drs. Rajaseelan and Albert published a recent peer-reviewed article with Millersville student, Aaron Maynard, and Millersville chemistry alumni, Drs. Michael Gau and Taylor Keller (University of Pennsylvania), in *IUCrData* titled “1-Ethyl-4-isopropyl-1,2,4-triazolium bromide” <https://doi.org/10.1107/S2414314623007848>
- Drs. Rajaseelan and Albert published a peer-reviewed article with Millersville student, Aaron Maynard, and Millersville chemistry alumnus, Drs. Michael Gau (University of Pennsylvania), in *IUCrData* titled “[(1,2,5,6- η)-Cycloocta-1,5-diene](1-ethyl-4-isopropyl-1,2,4-triazol-5-ylidene)(triphenylphosphane)iridium(I) tetrafluoroborate dichloromethane sesquisolvate” <https://doi.org/10.1107/S2414314623009033>

Congratulations to Dr. Edward Rajaseelan, Dr. Daniel Albert & Timothy Lerch (current student):

- Drs. Rajaseelan and Albert published a recent peer-reviewed article with Millersville student, Tim Lerch, and Millersville chemistry alumnus, Drs. Michael Gau (University of Pennsylvania), in *IUCrData* titled “[(4-Butyl-1-ethyl-1,2,4-triazol-5-ylidene)](1,2,5,6- η)-cycloocta-1,5-diene](triphenylphosphane)rhodium(I) tetrafluoroborate” <https://doi.org/10.1107/S2414314624000609>

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MU Chemistry Faculty Milestones & Achievements-continued!

- Drs. Rajaseelan and Albert published **three** peer-reviewed articles over the 2024 summer with Millersville student, Timothy Lerch, and Millersville chemistry alumnus, Dr. Michael Gau (University of Pennsylvania), in *IUCrData* titled: (1) "[\(4-Butyl-1-ethyl-1,2,4-triazol-5-ylidene\)\[\(1,2,5,6-η\)-cycloocta-1,5-diene\]\(triphenylphosphane\)iridium\(I\) tetrafluoridoborate](#)", (2) "[\[\(1,2,5,6-η\)-Cycloocta-1,5-diene\]\(1-ethyl-4-isobutyl-1,2,4-triazol-5-ylidene\)\(triphenylphosphane\)rhodium\(I\) tetrafluoridoborate](#)", and (3) "[Chlorido\[\(1,2,5,6-η\)-cycloocta-1,5-diene\]\(1-ethyl-4-isobutyl-1,2,4-triazol-5-ylidene\)rhodium\(I\)](#)"

Congratulations to Dr. Daniel Albert

- Dr. Albert presented **two** talks ("Structuring Student Developed Procedures and Analysis in the Physical Chemistry Laboratory" and "Passer Award Committee Keeps Alive the Vision of Dorothy and Moses Passer") at the Biennial Conference on Chemical Education at the University of Kentucky.
- Dr. Albert organized the 17th Annual Science Olympiad in March 2024 along Dr. Laura Ramos-Sepulveda. Dr. Albert has been the site director for this event for 4 consecutive years.

Congratulations to Dr. Kristen Baker:

- Dr. Baker published a peer reviewed article - Hughes, R.R., Battistoni, L. D.; Ciesla, M. J.; Bolton, T.; Asher, M.; Irizarry, G.; Martinez, A. A.; Baker, K. M.; Mulcahy, S. M. Asymmetric Synthesis of an Atropisomeric b-Carboline via Regioselective Intermolecular Rh(I)-Catalyzed [2 + 2 + 2] Cyclotrimerization. *Tetrahedron Lett.* **2024**, *146*, 155187. DOI: [10.1016/j.tetlet.2024.155187](https://doi.org/10.1016/j.tetlet.2024.155187)
- Dr. Baker received the Robertson release time fellowship for Fall 2024.
- Dr. Baker represented the department with a hands-on activity at the Governor's State STEM Competition in Harrisburg in May 2024 and she also led the ACS Student Chapter members in chemistry demonstrations at Spooky Nook for the Discovering Paths (STEAM) Day hosted by the Lancaster Chamber in November 2023.

Congratulations to Dr. Michael Elioff:

- Drs. Elioff and Rickard organized the Fleetwood High School visit with the Chemistry Department in September 2023.

Congratulations to Dr. Steven Kennedy:

- Dr. Kennedy organized a visit day for Harrisburg Area Community College students and faculty in March to strengthen collaboration between Millersville and HACC.

Congratulations to Dr. Jeremiah Mbindyo:

- Dr. Jeremiah Mbindyo was awarded another PA Manufacturing Innovation Program Grant. This time with the Fontana Candle Company entitled "Optimization of a Green and Environmentally Sustainable Candle Manufacturing Process". MU students involved: Tyler Rodenberger, Zachary Nikolaus, and Rachel Bonner.
- Dr. Jeremiah Mbindyo presented "Green and sustainable chemistry in the undergraduate curriculum." at the National American Chemical Society Conference in New Orleans, Spring 2024.

Congratulations to Dr. Aimee Miller:

- Dr. Aimee Miller was a Program Chair for the Division of Chemical Education at the National American Chemical Society Meeting in Denver, Colorado, August 2024.

Congratulations to Dr. Melissa Mullen Davis:

- Dr. Mullen Davis published two peer-reviewed book chapters in the ACS Symposium Series Book on [Chemistry in General Education](#). The chapters are titled "[Distance Learning with Food Chemistry](#)" and "[Fostering Student Sense of Belonging with Inclusive Course Design](#)."
- Dr. Mullen Davis published a peer-reviewed book chapter in [Inclusive Practices: Ideas for Classroom Integration From Millersville Classrooms to Yours](#) titled: *Interdisciplinary Perspectives Assignment: Increasing Student Interest, Engagement, and Sense of Belonging with Diverse Topic Exploration*.

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MU Chemistry Faculty Milestones & Achievements-continued!

- Dr. Mullen Davis presented **two** talks (“Interdisciplinary Perspectives of Culinary Chemistry” and “Creative Final Projects in Biochemistry ‘Inspired by Enzymes’”) at the Biennial Conference on Chemical Education at the University of Kentucky.

Congratulations to Dr. Lyman Rickard:

- Dr. Rickard presented “Development of an aptamer based biosensor for the electrochemical detection of myoglobin.” at the National American Chemical Society Conference in New Orleans, Spring 2024.
- Dr. Rickard has been the committee Chair for the Annual Brossman Foundation and Ronald E. Frisbie Sr. Science Lectureship event for 21 years. He organized this event in the Fall 2023 and this year (Fall 2024) the speaker is: Dr. John Howard, Director of the National Institute for Occupational Safety and Health and Administrator of the World Trade Center Health Program.
- Dr. Rickard led the ACS Student Chapter members in chemistry demonstrations at the Lancaster Science Factory in November 2023 & February 2024 with additional demonstrations planned this year.

MU Student/Chemistry Majors News

In Fall 2024, the Chemistry Department welcomed 19 first-year students coming in as chemistry majors at Millersville, 7 transfer students joining us from other institutions – a total of **26 students**.

Chemistry faculty and students continue to be actively engaged in research, grant writing, and presenting their work at conferences. Numerous students received funding from Noonan, Niemeyer-Hodgson, and SGRCA research grants as well as the Southeastern Pennsylvania Section of the American Chemical Society and the College of Science and Technology Student Travel Fund. In March, nine (9) students traveled in person with **Dr. Lyman Rickard** and **Dr. Jeremiah Mbindyo** to the 2024 National ACS Conference in New Orleans to present their research posters.



At the 2024 ACS National Meeting Poster Session:

(clockwise) Andrea Forry, Kelly Sprenkel, Natalie Weinmann, Munachukwuso Charles-Monwuba, Emma Witmer, Jared Martin & Megan Malecki, Logan Weaver, Timothy Lerch.

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Spring 2024 National American Chemical Society Meeting



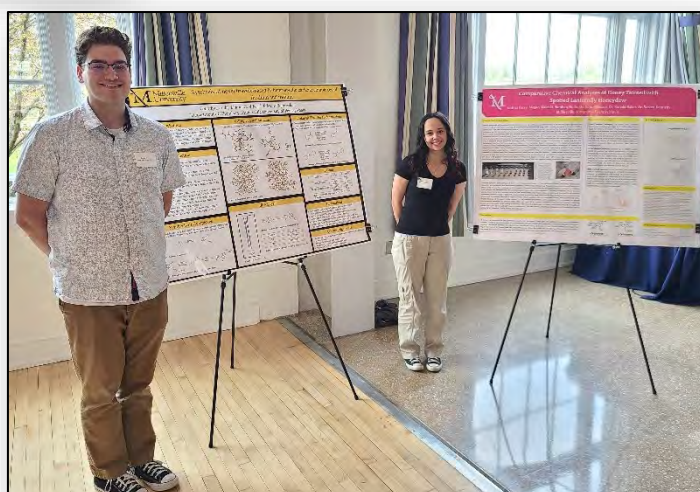
Top: Timothy Lerch, Emma Witmer, Kelly Sprenkel, Natalie Weinmann, Andrea Forry (*left to right*)

Bottom: Megan Malecki, Jared Martin (*left to right*)

Our students also presented at the 2024 SEPSACS Education Night.

Spring 2024 SEPSACS Education Night:

Timothy Lerch, Andrea Forry (*left to right*)



Summer 2024 Summer Research Placements

Five (5) Millersville Chemistry majors were selected to participate in summer research programs – (REU, Murley Summer Research) across the country.

<u>Student</u>	<u>REU</u>	<u>Institution</u>
Munachukwuso Charles-Monwuba	REU	University of California, Irvine
Timothy Lerch	REU	Kent State University
Kelly Sprenkel	REU	University of Delaware
Amber Nickey	Murley Summer Research	Millersville University
Jessica Rarick	Murley Summer Research	Millersville University

Company Internships During 2023-2024

Five (5) Millersville Chemistry majors engaged in internship or chemistry-related work experiences with regional companies.

<u>Student</u>	<u>Company</u>	<u>Location</u>
Rachel Bonner	Fontana Candle Company	Lancaster, PA
Chaz Eavenson	Eurofins	Leola, PA
Peyton Frederick	K&L Plating / Millersville U.	Lancaster, PA
Zachary Nikolaus	Fontana Candle Company	Lancaster, PA
Tyler Rodenberger	K&L Plating / Millersville U.	Lancaster, PA
Tyler Rodenberger	Fontana Candle Company	Lancaster, PA

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Congratulations to Millersville Chemistry Students – Spring 2024:



*Congratulations
Aaron Maynard!*

*Dean Marc Harris, Dr.
Daniel Albert, Aaron
Maynard, President Daniel
Wubah, Ms. Karen Murley,
Dr. Edward Rajaseelan
(left to right)*

1. **Aaron Maynard** was selected as Millersville's nominee to PASSHE for the prestigious **Ali Zaidi award** this year, for academic excellence from a graduating senior. This is the **fourth** year in a row the Millersville nominee has been a chemistry major.
2. **Aaron Maynard** also defended his Departmental Honors Thesis on work that he completed during his undergraduate Research Experience with Drs. Rajaseelan and Albert. The research was funded by the Murley Fellowship.



3. At the end of the Spring 2024 semester, the Chemistry Department celebrated our graduating seniors and chemistry majors with an awards' ceremony and a picnic at the Caputo/Roddy courtyard.



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2024 Chemistry Department Awards

This year's student recipients of Chemistry Department Awards were:

- Excellence in Introductory Chemistry Award – **Timothy Lerch**
- Cecil M. Upton Organic Chemistry Award – **Kelly Sprenkel**
- Murley Summer Undergraduate Research Fellowship – **Amber Nickey & Jessica Rarick**
- American Institute of Chemists Award – **Jeromy Gregory-D'Amico & Katelyn Ebersol**
- MU ACS Student Chapter Award – **Emma Witmer**

American Chemical Society Division Undergraduate Awards in:

- Analytical Chemistry – **Natalie Weinmann**
- Inorganic Chemistry – **Aaron Maynard**
- Organic Chemistry – **Aaron Maynard & Katelyn Ebersol**
- Physical Chemistry – **Jeromy Gregory-D'Amico**
- Environmental Chemistry – **Rachel Bonner**
- Biochemistry - **Natalie Weinmann**
- Chemical Safety and Ethics – **Aaron Maynard**



ACS Southeastern PA Section (SEPSACS) Award:

Outstanding Senior Chemistry Major - **Aaron Maynard**

2024 Chemistry Department Scholarships

- Richard Sasin Endowed Scholarship in Chemistry – **Lucia Consigliere & Dylan Tull**
- Yvonne and Sandra L Turchi Biochemistry Scholarship – **Munachukwuso Charles-Monwuba**
- Sandra A. Yeager, Ph.D. Chemistry Scholarship – **Andrea Forry**
- Dr. R. Edward Rajaseelan Excellence in Chemistry Scholarship – **Timothy Lerch**
- Barbara Rogers '63 Scholarship for Excellence in Chemistry Endowment – **Megan Malecki**



Spring 2024 – Graduates Awards Recognition & Picnic

Top (left to right): Jeromy Gregory-D'Amico, Peyton Frederick, Natalie Weinmann, Thalia Lopez Pulido, Katelyn Ebersol, Aaron Maynard

Bottom (left to right): Jesse Pechart, Tyler Rodenberger, Emma Witmer, George Pearson

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This year, 10 additional chemistry majors joined the ranks of our alumni. The Chemistry Department is very proud of our Spring 2024 graduates!



Spring 2024 Chemistry Graduates

Standing (left to right): Natalie Weinmann^a, Peyton Frederick^c, Aaron Maynard^b, Katelyn Ebersol^c, Emma Witmer^c, Jeromy Gregory-D'Amico^{a,c}

Not Shown: George Pearson^b, Jesse Perchart, Tyler Rodenberger^c, Abigail Schwartz

a - Completed a Departmental and University Honors Thesis

b - Completed a Departmental Honors Thesis

c - ACS Certified Degree

Our graduates continue their careers in chemistry-related field or are attending graduate and professional school programs after graduation. Some are listed here:

- **Katelyn Ebersol** – Ph.D. program in Chemistry at University of Maryland-Baltimore County
- **Aaron Maynard** – Ph.D. program in Environmental Engineering at Oregon State University
- **George Pearson** – MS program in Biotechnology at John Hopkins University
- **Abigail Schwartz** – Chemistry Teacher at Henderson High-School

Spring 2024 Graduation



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Walking up the graduation stage with a smile! The Chemistry Department was represented on stage by our chemistry graduates, Dr. Daniel Albert who was the Educator of the Year, and the Commencement Speaker, Dr. Jon Kauffman (Chemistry Alumni – MU 1985) Vice President of Biopharma Biologics, Eurofins Lancaster Labs, Inc.



Spring 2024 Graduation Ceremony:
Drs. Maria Schiza, Melissa Mullen Davis, and Aimee Miller

Having fun at the Spring 2024 Graduation with Colleagues and our Chemistry Graduates!

We are so proud of you!



Spring 2024 Graduation Ceremony:
Drs. Melissa Mullen Davis, Maria Schiza, Steven Kennedy, and Daniel Albert

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Notable Alumni Achievements/Updates

1. **Dr. Ernest Kelly** (MU-1971), Ph.D., Villanova University (1977). After a very successful pharmaceutical career of 50 years, Dr. Kelly has retired and enjoys spending time with his wife, his 3 sons, and his 3 grandchildren. [Click here for more information.](#)
2. **Dr. Nicholas Rider** (MU-1995) D.O. - Kansas City University of Medicine and Bioscience (2002); Penn State Hershey Medical Center Residency (2006); Fellowship (2008). He is currently a Professor in the Department of Health System & Implementation Science at Virginia Tech Carilion School of Medicine.
3. **Dr. Raymond Pugh** (MU-2003), Ph.D., in Pharmaceutical Chemistry, Lehigh University (2010). He completed two postdoctoral appointments, one at Penn State University, and one at the University of Michigan. Currently, he is an Associate Professor at the University of Wisconsin-Platteville. [Click here for more information.](#)
4. **Dr. Amy Fraley** (MU-2014), Ph.D., from the University of Michigan (2019). Currently, Dr. Fraley is a tenure-track Assistant Professor of Medicinal Chemistry at the ETH Zurich Department of Chemistry and Applied Biosciences.
5. **Joel Trout** (MU-2018) Joel currently works as an Analytical Chemist in the Quality Control Laboratory at Johnson Matthey in West Deptford, NJ. He was recently recognized as a Chemist of the quarter in his workplace.
6. **Joy Thames** (MU-2018) Ph.D., University of Maryland-Baltimore County (2024). Joy recently defended her Ph.D. thesis and started an ORISE Post Doctoral Fellowship at the United States Army Medical Research Lab for Chemical Defense.



*Congratulations
Dr. Joy Thames!*

7. **Lauren Ostopowicz** (MU-2018) Lauren is working at Shimadzu Scientific Instruments. She has been awarded with the Sales Employee of the Year Award and their Molecular Spectroscopy Group has received the Top Product Line Growth Award for the Fiscal Year 2023.

8. **Girum Erkalo** (MU-2020) Girum completed his Masters of Science degree in Chemistry at Princeton University and he is continuing on in his path to earn his Ph.D.



*Congratulations
Girum Erkalo!*



*Congratulations
Lauren Ostopowicz!*

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*Congratulations
Betel Erkalo!*

9. **Betel Erkalo** (MU-2023) Betel is currently pursuing her Ph.D, at Yale University. She recently received the T.F. Cooke Teaching Award for Excellence in Teaching at Yale.

10. **Rebecca Drager** (MU-2023) Rebecca is currently a Ph.D. candidate at the Ohio State University. She recently received the 2023-2024 College of Arts and Sciences Outstanding Graduate Associate Teaching Award!



*Congratulations
Rebecca Drager!*

Fall 2024 – Seminar Series

The Fall 2024 Seminar Series, hosted this year by **Dr. Melissa Mullen Davis**, includes speakers from University of Delaware, Temple University, University of Pennsylvania, Millersville University, as well as this year's Murley student presenters. Seminars take place on Mondays from 4-5 pm, in Roddy 149. The complete list of seminars can be found here: <https://www.millersville.edu/chemistry/curriculum/seminars.php>

We are very proud of the successes of all our graduates over the years. Our alumni reflect our efforts, dedication, and quality of teaching. ***You are Millersville Chemistry, and we celebrate you this and every year. Thank you!*** We are always delighted to hear from you. Please stop by and visit us when you are in the area or send us an update.

Alums! We LOVE to hear from you!

Update your contact information online at: <http://www.millersville.edu/chemistry/alumni/index.php>

Click on the “**Updates Form**” button
to update your information for us.

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