

# COLLEGE OF SCIENCE AND TECHNOLOGY

# CHEMISTRY

## NEWSLETTER

Millersville University, Dept. of Chemistry ♦ <http://www.millersville.edu/chemistry/> ♦ Fall 2023

***Greetings from the Chemistry Department!*** We are very excited to report that we had another successful year, and we would like to share our good news with you!



We would like to give special thanks to **Dr. Aimee Miller** for her three years of service as the Chair of our department. She expertly led the department during the last three challenging years. Her patience, resourceful ideas, and sensible character kept the Millersville Chemistry Department flourishing!

That means we have a new Chair for the Chemistry Department, Dr. Daniel Albert! Dr. Albert is an Associate Professor of Physical Chemistry.

***Congratulations Dr. Daniel Albert! – New Department Chair***

### **Murley Undergraduate Research Fellowship – Summer 2023**

In 2023, the Murley Summer Undergraduate Research Fellowship was awarded to two top Millersville Chemistry applicants. **Kelly Sprenkel & Logan Weaver** carried out intensive summer research with Millersville Chemistry Faculty thanks to the generous support of **Ms. Karen Murley**. Both students did their research with **Dr. Daniel Albert**. **Kelly Sprenkel** worked on "Indoor Air Quality and mVOCs" and **Logan Weaver** worked on "Setschenow Constants for Salting Out SOA-Producing Organic Compounds".



**Murley Summer Fellowship - 2023**  
*Logan Weaver, Ms. Karen Murley, Kelly Sprenkel (left to right)*

### **Faculty and Staff Transitions**

This year we hired a tenure-track faculty with expertise in Organic Chemistry, **Dr. Kristen M. Baker**. Dr. Baker grew up about an hour from Millersville in Harrisburg, PA. She received her B.S. (2016) in Chemistry from Gettysburg College. She then worked with Dr. Mary Watson at the University of Delaware to earn her Ph.D. in Chemistry (2021). Her graduate work focused on synthetic organic method development, with an emphasis on transition metal catalysis.

Prior to Millersville, she did a postdoctoral teaching and research fellowship at Providence College where she worked with undergraduate students in the Mulcahy group on the synthesis of configurationally stable atropisomers. Additionally, she taught general chemistry and organic chemistry during her postdoc. This fall she is teaching the organic chemistry lab for CHEM 232 & the combined organic course, CHEM 235.



***Mr. Stephen Nolte***



***Dr. Kristen M. Baker***

We also hired **Mr. Stephen Nolte** for the Chemistry Technician position. Stephen graduated from Millersville University with a B.S. in Chemistry (2016) and began working at Eurofins Lancaster Laboratories Environmental, where he tested for VOC contamination of ground soil and water using GC/MS.

After gaining experience running and performing maintenance on chromatography systems as a Senior Chemist at Eurofins, Stephen began a new opportunity with PerkinElmer as a Customer Support Engineer, followed by CBRE as a Senior LIS Technician, servicing the chromatography systems in the analytical chemistry laboratory and maintaining instrumentation in the microbiology laboratory at the Johnson & Johnson facility in Lititz, PA. Now, Stephen has returned to Millersville as our Chemistry Technician to support the professors and students of the chemistry department!



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### Retirement Celebrations!

This past year we celebrated the retirements of Dr. Steven Bonser (15 yrs. of service) and Mr. Stephen Peurifoy (14.5 yrs. of service). We were sad to see them go, and we wish both an enjoyable retirement!



*Mr. Stephen Peurifoy  
& Ms. Eileen Edwards*

*Dr. Steven Bonser  
& Mrs. Catherine Bonser*



*Standing: Drs. Jeremiah Mbindyo, Lyman Rickard, Steven Kennedy, Mr. Stephen Peurifoy, Drs. Daniel Albert, Edward Rajaseelan, Sitting: Drs. Aimee Miller, Michael Eliofoff, Maria Schiza, Melissa Mullen Davis, and Ms. Madison Rebman*

### Hosting the Southeastern Pennsylvania Section of the American Chemical Society (SEPSACS) – Education Night Conference at Millersville!

We were very excited this year as the Chemistry Department hosted for the first time the SEPSACS-Education Night, an event that was coordinated by **Dr. Lyman Rickard**. Several of our students presented their research in a poster session along with students from surrounding undergraduate institutions. There were 130 attendees.



*Ashleigh Dell & Peyton  
Frederick*

*Dr. Maria Schiza  
& Rebecca Drager*

*Dr. Daniel Albert, Derric Rushlow, SEPSACS Award Recipient: Joshua Rushlow, Deanna Rushlow, and  
Dr. Edward Rajaseelan*



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### Important MU Chemistry Faculty Milestones & Achievements!

#### Congratulations to Dr. Daniel Albert, Dr. Edward Rajaseelan & Troy Smith (MU-2020):

- Congratulations to Dr. Albert, Dr. Rajaseelan, and alum Troy Smith (MU-2020) who recently published a paper: Troy E. Smith, Andrei V. Astashkin, Daniel R. Albert and Edward Rajaseelan; “[1,2,5,6-  $\eta$ ]-Cycloocta-1,5-diene] (4-isopropyl-1-methyl-1,2,4-triazol-5-ylidene)(triphenylphosphane- $\kappa$ P)iridium(I) tetrafluoroborate dichloromethane 0.8 solvate” IUCrData, 2023, 8, x230064, DOI: <https://doi.org/10.1107/S2414314623000640>

#### Congratulations to Dr. Michael Elioff:

- Congratulations to Dr. Michael Elioff on his recent peer-reviewed publication in the *Journal of Photochemistry and Photobiology A* titled: Fluorescent turn-off sensor for Cu<sup>2+</sup> and Fe<sup>3+</sup> ions in 100% aqueous media with a biocompatible polymer, <https://doi.org/10.1016/j.jphotochem.2023.114848>

#### Congratulations to Dr. Jeremiah Mbindyo:

- Congratulations to Dr. Jeremiah Mbindyo on being awarded a new **\$68,860** PA Manufacturing Innovation Program Grant with the Fontana Candle Company titled “Optimization of a Green and Environmentally Sustainable Candle Manufacturing Process.”

#### Congratulations to Dr. Melissa Mullen Davis:

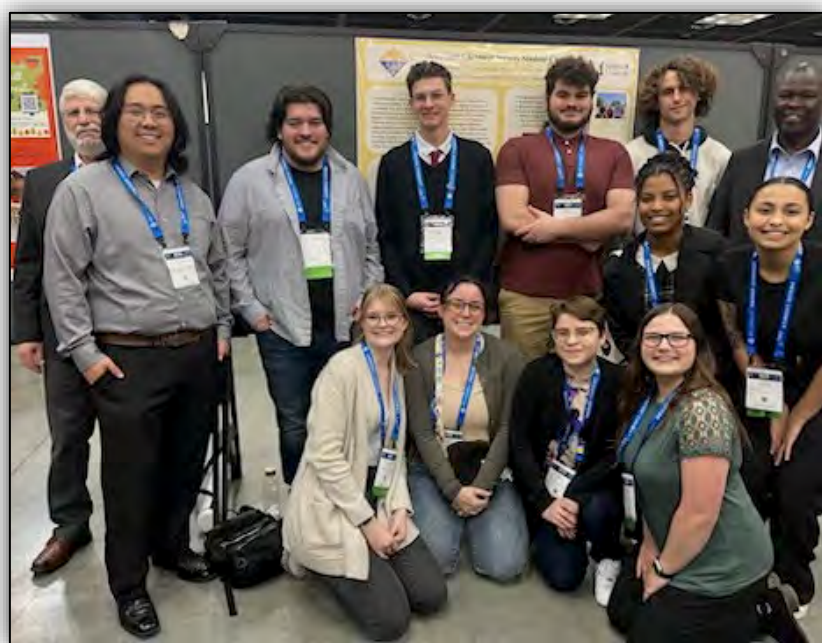
- Dr. Mullen Davis published a peer-reviewed article in the *Journal of Chemical Education* titled: “Writing Children's Books to Increase Engagement in Non-Major Introductory Chemistry Courses.” <https://doi.org/10.1021/acs.jchemed.3c00068>.
- Dr. Mullen Davis gave a talk at the virtual, International "Chemistry Laboratory: Evaluation, Assessment, and Research (CLEAR) Symposium in May 2023.
- Dr. Mullen Davis published a peer-reviewed database entry in the *Teaching Online Pedagogical Repository* titled: “Encouraging Transparency and Accountability for Group Oral Presentations” <https://topr.online.ucf.edu/encourage-transparency-and-accountability-for-group-oral-presentations/>

### MU Student/Chemistry Major News

In Fall 2023, the Chemistry Department welcomed 21 first-year students coming in as chemistry majors at Millersville, 5 transfer students joining us from other institutions and 1 returning student – a total of **27 students**.

Chemistry faculty and students continue to be actively engaged in research, grant writing, and presenting

their work at conferences. Numerous students received Noonan, Niemeyer-Hodgson, and SGRCA research grants.



#### Spring 2023 ACS National Meeting

**Top:** Dr. Lyman Rickard, William Trinh, Peyton Frederick, Joshua Rushlow, George Bershtein, Aaron Maynard, Dr. Jeremiah Mbindyo (*left to right*)

**Middle:** Betel Erkaló, Elisabel Balbuena (*left to right*)

**Bottom:** Rebecca Drager, Victoria Hans, Emma Witmer, Amanda McKee (*left to right*)

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### Spring 2023 National American Chemical Society Meeting

In March, fifteen (15) students traveled in person with **Dr. Lyman Rickard** and **Dr. Jeremiah Mbindyo** to the 2023 National ACS Conference in Indianapolis, IN to present their research posters.



### At the 2023 ACS National Meeting Poster Session:

(clockwise) Joshua Rushlow, Aaron Maynard, Emma Witmer, Betel Erkalo, Payton Frederick, Ashleigh Dell, Madison Adams, Amanda McKee, Jordyn Levine, Madison Cherubin, Victoria Hans, George Bershtein. (center) in group photo – Rebecca Drager, and William Trinh.

### Summer 2023 Summer Research Placements

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

<u>Student</u>	<u>REU</u>	<u>Institution</u>
Munachukwuso Charles-Monwuba	REU	University of Pittsburg
Aaron Maynard	REU	Mississippi State University
Kelly Sprenkel	Murley Summer Research	Millersville University
Logan Weaver	Murley Summer Research	Millersville University
Natalie Weinmann (with MU Alum Dr. Jillian Weissenrieder)		University of Pennsylvania



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### Company Internships During 2022-2023

Nine (9) Millersville Chemistry majors engaged in internship or chemistry-related work experiences with regional companies.

Student	Company	Location
Madison Adams	Guardian CSC	Wrightsville, PA
Elizabeth Brittingham	Eurofins	Leola, PA
Madison Cherubin	NeverWet	Lancaster, PA
Ashleigh Dell	K&L Plating	Lancaster, PA
Peyton Frederick	K&L Plating, MU Chemistry Lab	Lancaster, PA
Jesus Gonzalez Torres	MRG Labs	York, PA
Harrison Noel	K&L Plating	Lancaster, PA
William Trinh	Pharmatech	Lancaster, PA
Than Vo	Lab Tech	Lancaster, PA

### Congratulations to Millersville Chemistry Students – Spring 2023:

1. **Joshua Rushlow** 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 third year in a row the Millersville nominee has been a chemistry major.
2. **Joshua Rushlow** on earning the **2023 Breidenstine Award** for the most outstanding Honors Thesis at Millersville. His thesis titled “New Green Chemistry Rhodium and Iridium Catalysts” was supervised by Dr. Rajaseelan.
3. **Madison Adams, Ashleigh Dell, & Peyton Frederick** won **First Place** for their video summary of the K & L Plating project they worked on with Dr. Jeremiah Mbindyo.
4. National ACS Meeting Poster Presenters: **Madison Adams, Elisabel Balbuena, George Bershtein, Madison Cherubin, Ashleigh Dell, Rebecca Drager, Betel Erkalo, Peyton Frederick, Victoria Hans, Jordyn Levine, Aaron Maynard, Amanda McKee, Joshua Rushlow, William Trinh, Emma Witmer.**
5. SEPSACS Poster Presenters: **Madison Adams, Elisabel Balbuena, George Bershtein, Madison Cherubin, Ashleigh Dell, Rebecca Drager, Betel Erkalo, Peyton Frederick, Victoria Hans, Jordyn Levine, Aaron Maynard, Amanda McKee, Joshua Rushlow, William Trinh, Emma Witmer.**
6. Made in Millersville Poster Presenters: **Madison Adams, George Bershtein, Ashleigh Dell, Rebecca Drager, Betel Erkalo, Peyton Frederick, Jesus Gonzalez Torres, Amanda McKee, William Trinh, Emma Witmer.**

### Celebrating Chemistry Graduates: 2023

To celebrate our 2023 Spring graduates, the chemistry department held a Spring Awards Ceremony and a picnic before the end of the semester.



*Top (left to right):  
Betel Erkalo, Dr. Mullen  
Davis, Betel Erkalo, Elliott  
Newman, Dr. Miller, Dr.  
Rajaseelan, Joshua Rushlow*

*Bottom (left to right):  
Dr. Albert, Kelly Sprenkel,  
Ashleigh Dell, Dr. Mbindyo,  
Dr. Rickard, Rebecca Drager*

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### Spring 2023 – Graduate Recognition & Picnic

**Top** (left to right): Elliott Newman, Madison Cherubin, Victoria Hans, Madison Adams, William Trinh, Amanda McKee, Rebecca Drager, Elisabeth Balbuena

**Bottom** (left to right): George Bershtein, Harrison Noel, Ashleigh Dell, Jordyn Levine, Jesus Gonzalez Torres, Maria Pilar Zaballa, Betel Erkalo, Joshua Rushlow



*Graduation 2023! – Clockwise: Elliott Newman, Ashleigh Dell, Jesus Gonzalez Torres, Devon Erb – Center: Joshua Rushlow & Rebecca Drager*



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### Graduation Celebration 2023!

Left: Amanda McKee, Dr. Daniel Albert

Right: Madison Adams, Dr. Jeremiah Mbindyo, Ashleigh Dell

Bottom: The Erkalo family – Graduating Senior: Betel Erkalo (2<sup>nd</sup>) and MU Chemistry Alumnus – 2020: Girum Erkalo (4<sup>th</sup>) - (left to right)

Last year, 21 additional chemistry majors joined the ranks of our alumni. The Chemistry Department is very proud of our Fall 2022 – Spring 2023 graduates!



### Spring 2023 Chemistry Graduates

**Standing** (left to right): Jesus Gonzalez Torres, Rebecca Drager<sup>a</sup>, Elliott Newman<sup>b</sup>, Joshua Rushlow<sup>a</sup>, William Trinh, Madison Cherubin<sup>b</sup>, Maria Pilar Zaballa

**Sitting** (left to right): Betel Erkalo<sup>b</sup>, Elisabel Balbuena, Devon Erb, Amanda McKee, Madison Adams, Ashleigh Dell

**Not Shown:** George Bershtein, Elizabeth Brittingham, Victoria Hans, Jordyn Levine, Harrison Noel, Marisa Ramos, Thang Vo, Evan Haas (Fall 2022 graduate)

<sup>a</sup> - Completed a Departmental and University Honors Thesis

<sup>b</sup> - Completed a Departmental Honors Thesis

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Many of our graduates had jobs or job offers in a chemistry-related field before graduation. Some are listed here:

- **Madison Adams – Guardian CSC**
- **George Bershtein – Oriental Yuhong North America**
- **Elizabeth Brittingham – Eurofins**
- **Ashleigh Dell – Environmental Protection Specialist/Naval Supply Systems Command, US Navy**
- **Jesus Gonzalez Torres – MRG Laboratories**
- **Evan Haas – Veltek Associates**
- **Maria Pilar Zaballa – Eurofins**

The following seven students are attending graduate school programs this Fall:

- **Elisabel Balbuena – Chemistry at University of Texas-Austin**
- **Madison Cherubin – Chemistry at Penn State University**
- **Rebecca Drager – Chemistry at the Ohio State University**
- **Betel Erkalo – Chemistry at Yale University**
- **Amanda McKee – Chemistry at West Virginia University**
- **Elliott Newman – Graduate School at Penn State Hershey Medical Center**
- **Joshua Rushlow – Chemistry at Texas A&M University**

### 2023 Chemistry Department Awards

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

- Excellence in Introductory Chemistry Award – **Jared Martin**
- Cecil M. Upton Organic Chemistry Award – **Aaron Maynard**
- Murley Summer Undergraduate Research Fellowship – **Kelly Sprenkel & Logan Weaver**
- American Institute of Chemists Award – **Betel Erkalo & Elliott Newman**
- MU ACS Student Chapter Award – **Rebecca Drager**

### American Chemical Society Division Undergraduate Awards in:

- Analytical Chemistry – **Katelyn Ebersol**
- Inorganic Chemistry – **Joshua Rushlow**
- Organic Chemistry – **Betel Erkalo**
- Physical Chemistry – **Joshua Rushlow**
- Environmental Chemistry – **Aaron Maynard**
- Chemical Safety and Ethics – **Ashleigh Dell**

### ACS Southeastern PA Section (SEPSACS) Award:

Outstanding Senior Chemistry Major - **Joshua Rushlow**

### 2023 Chemistry Department Scholarships

- Richard Sasin Endowed Scholarship in Chemistry – **Megan Malecki & Pearl Ramos**
- Gerald S. Weiss Chemistry Scholarship – **Joshua Rushlow**
- Yvonne and Sandra L Turchi Biochemistry Scholarship – **Katelyn Ebersol**
- Sandra A. Yeager, Ph.D. Chemistry Scholarship – **Munachukwuso Charles-Monwuba**
- Dr. R. Edward Rajaseelan Excellence in Chemistry Scholarship – **Aaron Maynard**
- Barbara Rogers '63 Scholarship for Excellence in Chemistry – **Timothy Lerch**



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### Notable Alumni Achievements/Updates

1. **Dr. Jon Kauffman** (MU-1985), Vice President of Biopharma Biologics, Eurofins Lancaster Labs, Inc. was honored as one of Millersville University's 40 Marvelous Marauders for 2022-2023.

<https://www.millersville.edu/alumni/marvelous-marauders/>



*Dr. Jon Kauffman*

2. **Dr. Curtis Zimmermann** (MU-1985) Ph.D., from Clarkson University (1990) and J.D. from Pace University (2007). He is currently the Chief Legal Counsel at Forge Nano, Inc.

3. **Mr. Rich Wurzbach** (MU-1988), President of MRG Labs was honored as one of the Millersville University's 40 Marvelous Marauders for 2022-2023. He stays involved with MU by mentoring chemistry and business students through internships offered at MRG Labs.

<https://www.millersville.edu/alumni/marvelous-marauders/>



*Mr. Rich Wurzbach*

4. **Dr. Nicholas Rider** (MU-1995) D.O. - Kansas City College of Medicine and Bioscience (2002). He is an Associate Professor of Pediatrics, Allergy-Immunology and Chair of the Division of Clinical Informatics at the Liberty University, College of Osteopathic Medicine.



*Dr. Tom Bernhardt*

5. **Dr. Tom Bernhardt** (MU-1996), Professor in Harvard Medical School was honored as one of Millersville University's 40 Marvelous Marauders for 2022-2023.

<https://www.millersville.edu/alumni/marvelous-marauders/>

6. **Dr. Erik Allman** (MU-2008) Ph.D., from University of Rochester School of Medicine and Dentistry (2013). He is currently the Associate Director of Preclinical and Clinical Metabolomics in AstraZeneca.

7. **Ms. Rachel Bechtel** (MU-2016) is a Senior Scientist for the consumer health company Kenvue.

8. **Dr. Peter Sitarik** (MU-2017) completed his Ph.D. in Material Science & Engineering from the University of Delaware 2023.

9. **Dr. Karam Idrees** (MU-2018) completed his Ph.D. in Inorganic Chemistry from Northwestern University in 2023.

10. **Ms. Jenna Davis** (MU-2020) is working for the PA Department of Agriculture as a Forest Insect Pest Aide 2 and is currently pursuing a graduate certificate in Forest Health & Resilience from the University of Florida. She recently received the Year of Service Award from the Secretary and Deputy Secretary of Agriculture.



*Secretary of Agriculture-Russell Redding, Ms. Jenna Davis, Deputy Secretary-Greg Hostetter*

### Fall 2023 – Seminar Series

The Fall 2023 Seminar Series, hosted this year by **Dr.**

**Melissa Mullen Davis**, includes speakers from University of Delaware, Stony Brook University, Rowan University, Penn State, 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 "Updates" on the bottom of the page.

Then click on "Update Now" to update your information for us.