# SUNY OSWEGO DEPARTMENT OF CHEMISTRY NEWSLETTER

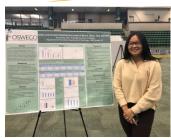
# **ACADEMIC YEAR**

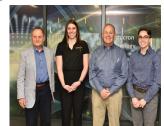
2022-2023

# Table of Contents:

Faculty/Staff Updates	2-7
Degree Candidates	8
Scholarships/Awards	9-10
Alumni Visits 11-1	3, 15
Chemistry Club	14
Graduation Photos	16
Quest 2023	17
Events	18
Summer 2023	19
Donations	20









# LETTER FROM THE CHAIR:

In my first year as chair of the Chemistry Department, I have worked to continue the great efforts of our former chair, Fehmi Damkaci, in the areas of curriculum, faculty recruitment, and alumni relations. The department continues to expand our curriculum by adding courses for graduate students and upper-level undergraduates. In the past year, we approved "Advances in Biotechnology" and "Advanced Electroanalytical Chemistry," which were proposed by Kestas Bendinskas and Vadoud Niri, respectively. We have also reintroduced "Computational Methods in Chemistry" and "Quantum Chemistry," which have not been taught in a number of years. Additionally, the new Materials Chemistry program is being reviewed at the campus level, and we anticipate sending it for SUNY approval later this academic year.

In the area of faculty recruiting, Dr. Arsalan Mirjafari is entering his second year as the Shineman Endowed Chair and Professor of Chemistry. His research has attracted many students, and he was a notable presence in the department. This fall semester, we also welcome Dr. Mahdi Hesari, an analytical chemist, and Dr. Alireza Shayesteh, a computational physical chemist. While we had a successful hiring year in 2022-2023, we still have two openings in the department, and we will be searching for both an environmental chemist and an organic chemist in the current academic year.

We continued to have several good interactions with our alumni in the past year. We hosted Gary Baker, who gave a seminar last November. I was able to travel to visit Gus and Bev Silveira in California last spring. We welcomed Peter Bocko, John Pavel, Sarah Rappleye, and Morgan Wolanin to campus for a panel discussion in the spring semester. Dr. Thomas Mahl visited us in the summer and met with several students in their research labs.

With continued gifts from Peter and Andrea Bocko and others, we were, again, able to increase the summer research stipend for our students. To ensure future support of students, Dr. Thomas Mahl recently made a major gift to the program and to his scholarship in support of a pre-med student. We use all of our alumni gifts to support our undergraduate and graduate students, with the majority going to summer research stipends. We ask that you utilize your company's matching donation policies to help us continue our efforts in providing valuable experiences for our students. We also regularly invite alumni back to meet with our students in their classes, over a meal, in a panel discussion, or by giving a seminar. If you are interested, please send us an email to schedule an inperson or online visit. Please enjoy reading our annual newsletter, which is full of exciting news related to our faculty, students and programs. We look forward to your continued support of our department.

Dr. Julia Koeppe

# **Faculty Updates**

Matthew Baker, Assistant Professor, Organic Chemistry

matthew.baker@oswego.edu

PhD., The Pennsylvania State University, 2014

B.A., Alfred University, 2009

#### **Research Interests:**

Design and synthesis of stimuli-responsive polymers and materials. Specific applications include polymers with sensing capabilities, biodegradable and environmentally friendly plastics, and biomaterials. Additional interests include the development of application-based organic and polymer chemistry teaching laboratory experiments.

### **Updates:**

Dr. Baker enjoyed mentoring three chemistry research students and one honors student from the geology department over the past academic year. During this time, his students were very busy working on improvements to the synthesis of a photo-degradable plastic and studying the environmental impacts of microplastics. As a result of their productivity, two of these students presented their work at a local symposium. Dr. Baker also presented results produced by his research group at the National American Chemical Society meeting in Indianapolis. In addition to the research carried out by SUNY Oswego students, Dr. Jessica Robbins from Bard College at Simon Rock came to Oswego to carry out research in Dr. Baker's lab during the fall and winter semesters. Dr. Baker is currently mentoring two summer research students and is looking forward to the upcoming academic year.

# Kestutis Bendinskas, Professor, Biochemistry

kestutis.bendinskas@oswego.edu

Post-doctoral fellow, John Hopkins University, 1997

Ph.D., Bowling Green State University, 1996

B.S., Mendeleev University of Chemical Technology, 1991

**Research Interests:** We measure cortisol, corticosterone, and testosterone in saliva/urine/hair/nails to help psychologists and medical professionals all over the country in their research.

### **Updates:**

Let's continue with an interesting story about Stress Bioanalytics LLC. This year, it has provided jobs (internship and biotech start-up RA or leadership experiences) for seven of our majors. The current and former students processed over 3,000 samples for many national studies, assessing hair and nail cortisol concentrations. Our work has expanded from humans to cats, dogs, chickens, deer, and even fish. Dr. Kestas has continued to serve on the board of SUNY Distinguished Academy, direct the Student Office of Research and Creative Activities (ORCA) and Quest, and run the *American Journal of Undergraduate Research (AJUR)*. With three of our students (Charlotte Labrie-Cleary, Vikrant Jandev, Hanna Cheng) as co-authors, Kestas published five peer-reviewed papers: "Airborne levels of cadmium are correlated with urinary cadmium concentrations among young children living in the New York state city of Syracuse, USA: in *Environmental Research*; "Feasibility of remote self-collection of dried blood spots, hair, and nails among people with HIV (PWH) with hazardous alcohol use" in *Alcohol: Clinical and Experimental Research*; Exposure to Arsenic and Subclinical Cardiovascular Disease in 9- to 11-Year-Old Children, Syracuse, New York in *JAMA*; "Race, Cortisol, and Subclinical Cardiovascular Disease in 9- to 11-Year-Old Children Living In Syracuse, New York, United States", also in *Environmental Research*.



**Thomas Brown,** Assistant Professor, Inorganic Chemistry thomas.brown@oswego.edu

Ph.D., University of Nevada, Reno, 2016 B.S..University of California, Davis, 2011

#### Research Interests:

Photoemissive copper(I) coordination compounds for use in optoelectronics. Metallophilicity between closed-shell metal ions and the resulting photoluminescence.

### Update:

Tom has completed his sixth year as tenure-track faculty with the Chemistry Department at SUNY Oswego. He had the joy of mentoring several research students resulting in fun times in the laboratory and exciting group meetings. This past year, Tom taught General Chemistry I & II with Lab, Inorganic Chemistry with Lab, and Organometallics. He continued to spread the love of inorganic chemistry by developing new laboratory experiments, both experimental and computational, for the senior-level Inorganic Chemistry Laboratory course. This past year, Tom was invited to speak at Binghamton University, and he also presented at the regional ACS meeting in New York City. Research, teaching, and committee work have kept Tom happily occupied with a smile on his face. Tom is looking forward to the next academic year and is excited to meet all the new students as well as welcome back those returning.

# **Shokouh Haddadi**, Associate Professor, Forensics & Analytical Chemistry

shokouh.haddadi@oswego.edu
PhD in Analytical Chemistry University of Waterloo, 2008
MS Tabriz University, 1999
BS Azad University, 1995



#### Research Interests:

Chemical Analysis of Latent Fingerprints, Forensic Drug Analysis, Arson Analysis

### **Update:**

Dr. Haddadi taught criminalistic chemistry and analytical chemistry undergraduate courses as well as the forensic analytical chemistry graduate course during the Fall 2022 semester and analytical chemistry and forensic chemistry undergraduate courses during the Spring 2023 semester. Dr Haddadi also continued conducting research in the area of forensic analytical chemistry, working with capstone students, the results of which were reported in Quest 2023. She has been working with two undergraduate student who received departmental grants, on a new forensic analytical project this summer, developing methods for analysis of volatile organic compounds absorbed on human hair for forensic purposes. Dr Haddadi is excited to teach Instrumental Analysis course this coming Fall semester. She is planning to finish writing two manuscripts during the Fall semester as well. Besides teaching and research, Dr. Haddadi enjoyed serving as the forensic minor advisor and the capstone/assessment coordinator, being in touch with capstone research students and research advisors, and getting to know staff and faculty of other departments and discussing assessment approaches. Dr Haddadi is a member of the alcohol and other drugs as well as the chemical hygiene committees. She also served as a member of the assessment task force committee last year. Dr Haddadi is looking forward to another exciting and effective year and would like to thank all faculty, staff and students who she had the opportunity to work with during the last academic year and helped her with their kind advice, excellent support and their warm and effective presence.

**Julia Koeppe,** Associate Professor, Biochemistry julia.koeppe@oswego.edu
Postdoctoral fellow, Oxford University, England, 2006-2010 Ph.D., University of California, San Diego, 2006 B.S., Hope College, Michigan, 2001



#### Research interests:

Protein interactions involved in activation and regulation of innate immunity. Protein interactions linking blood clotting and inflammation. Structure-function relationships in enzymes. Creating research-based curricula for biochemistry teaching labs.

## **Updates**:

I took over as chair of the department in August 2022. Because of this new responsibility, I kept my research lab a bit smaller with 5 students working on projects during the year. Of these, 3 were working on Capstone projects, and 1 was an MS student. The students worked together to write two Scholarly and Creative Activity proposals in the fall semester to secure funding for their projects: one confirming function in two enzymes structures of unknown function that we've been working with for a while and one on using surface plasmon resonance to study interactions between regulatory proteins of the complement system. This past year was also the first year of a new NSF grant continuing funding for my biochemistry lab curriculum project to introduce research experiences in the biochemistry teaching lab. The focus of the current grant is to expand the number of campuses using our Biochemistry Authentic Scientific Laboratory (BASIL) project, and to identify the types of barriers that instructors encounter when changing to a research-based curriculum. In order to expand BASIL to more campuses, I have been hosting online and in-person workshops to aid faculty in developing an implementation plan. We hosted three online workshops in 2022-2023 as well as an in-person workshop at Fayetteville State University. Additionally, I presented a talk about the BASIL project at the Biophysical Society Annual meeting in San Diego in February 2023. I also presented a poster at the same meeting with results confirming esterase and/or lipase activity in a few protein structures that are part of the BASIL project.



Postdoc: Univ. of South Alabama

Postdoc: QUILL Research Centre, Queen's University of Belfast

Ph.D. in Organic Chemistry, University of Isfahan.

MSc in Organic Chemistry, Department of Chemistry, University of Isfahan.

BSc in Chemistry, Department of Chemistry, University of Isfahan.

**Research interests:** Organic-ion-based formulations to improve vaccine stability, Biomaterials for nucleic acids delivery, Electrolytes for energy storage technologies, Biomimetic and bioinspired materials, Bioderived materials for direct air capture of CO<sub>2</sub>

**Updates**: In its inaugural year at SUNY Oswego, the Mirjafari Lab has achieved remarkable milestones with the steadfast dedication of a team comprising six talented undergraduate and graduate students. Supported by NIH, NSF, and the Shineman Foundation, the lab embarked on transformative projects at the interface of materials chemistry and chemical biology. As a result, the lab successfully generated six peer-reviewed publications, prominently featuring undergraduate students as coauthors. This accomplishment serves as a powerful testament to the lab's unwavering commitment to nurturing hands-on learning experiences and providing meaningful research opportunities for the chemistry/biochemistry students of SUNY Oswego. Furthermore, it stands as a vivid embodiment of the lab's influential contributions to the dynamic biomaterial community.



Vadoud Niri, Associate Professor, Analytical Chemistry vadoud.niri@oswego.edu
Post-doctoral fellow, University of North Dakota, 2009-2010
Post-doctoral fellow, University of Waterloo, 2004-2008
Ph.D. in Analytical Chemistry, University of Tabriz



#### **Research Interests:**

Dr. Niri's research group has been focusing on developing new sampling/sample preparation and analytical methods for monitoring chemical pollutants, which negatively affect public health and the environment (air, water, soil and sediment media) and investigating the efficiency of possible removal/remediation techniques for these compounds.

### **Update:**

Dr. Niri has been active in research by supervising graduate and undergraduate students in their research projects in the area of analytical chemistry during last fall and spring semesters. He also worked with three research students during the summer. His research group worked on different projects such as the effect of phenolic compound concentrations in staghorn sumac seeds on the winter foraging behaviors of birds, analyzing the chemicals leaked from teabags using SPME-GC-MS, and the study of electrochemical behavior of ionic liquids. He has been collaborating with Drs. Haddadi and Mirjafari from the chemistry department and Dr. Michael Schummer from SUNY-ESF. The results of the research project have been presented on-campus and regional meetings.

### **Presentations** (presenters are <u>underlined</u>):

- M. Cleland, J. Hiebert, S. Krebs, M. Schummer, V. Niri, Method Development for Extraction and Analysis of Phenolic Compounds from Staghorn Sumac (Rhus Typhina), Summer Scholars Symposium, SUNY-Oswego, September 9, 2022 (poster presentation)
- M. Cleland, J. Hiebert, S. Krebs, M. Schummer, V. Niri, Effects of Phenolic Compound Concentrations on the Winter Foraging of Birds on Staghorn Sumac, QUEST symposium, SUNY-Oswego, April 19, 2023 (Oral presentation)
- 3. <u>J. Hiebert</u>, M. Cleland, S. Krebs, M. Schummer, **V. Niri**, Investigating the effect of phenolic compound concentrations in staghorn sumac seeds on the winter foraging behaviors of birds, *Central Regional Meeting (CERM)*, Dearborn, MI, June 20-23, 2023. (*Poster presentation*)

# Whalmany Ounkham, Visiting Assistant Professor, Organometallics

whalmany.ounkham@oswego.edu Ph.D., University of Nevada, Reno B.S., California State University Fresno, Fresno

### **Research Interests:**

Synthesis of organometallic complexes and catalysts in aqueous solutions. Exploring green chemistry and sustainability approaches to chemistry.

#### **Updates:**

Linglee has completed her fifth year with the Chemistry Department at SUNY Oswego. She really enjoyed conducting research on developing water-soluble catalysts for organic transformation with her research students. Linglee has continued to teach General Chemistry I & II, Chemistry and Public Concern, and Analytical Chemistry Lab. Additionally, Linglee served on a variety of committees impacting many facets of campus which included the Environmental, Sustainability, Chemical Hygiene, and AOD committees. Linglee has enjoyed her time at Oswego so far and looks forward to continuing the adventure with returning and new students through the next academic year.

**Casey Raymond**, Associate Professor, Inorganic Chemistry casey.raymond@oswego.edu
Post-doctoral fellow. Northwestern University. 1996–1998

Post-doctoral fellow, Northwestern University, 1996 Ph.D., Colorado State University, 1996 B.S., Michigan State University, 1991



### **Research Interests:**

Solid-state inorganic chemistry, metal oxide, boron chemistry, crystallography, brewing science, fermentation science, and food science.

### **Update:**

With our transition to a new learning management system, Brightspace, Jeff and I needed to find a new method for loading questions into the system. Even though the company told us, "You can't do that." we were able to reverse engineer their own system and create a method to load questions. We made a few adjustments during the fall semester and then began showing others how to make it work. Overall, it gives us more flexibility than the previous system, but it is getting old needing to create new processes to teach each time the software changes. I continued my roles as the Associate Director of the Oswego Honors Program and the coordinator for the Faculty Accessibility Fellows. I also worked with a small group to secure funding through the SUNY IITG program to shift our accessibility challenge to a Brightspace course that we hope will be available SUNY wide. Melissa and I continue to bicycle and took our first vacation in several years when we took our tandem to France for a couple of weeks of self-supported touring in Brittany. Our three cats have settled in and are doing well.

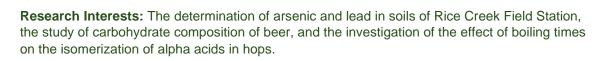
# Jeffery Schneider, Associate Professor, Analytical and Environmental Chemistry

jeffery.schneider@oswego.edu

Ph.D., Dartmouth College, 1992

M.S., University of Wisconsin-Milwaukee, 1985

B.S., University of Wisconsin-Milwaukee, 1981





# **Staff Updates**

Kristin Gublo, Instructional Support Specialist

kristin.gublo@oswego.edu

M.S., SUNY Oswego, 1999

B.S., SUNY Oswego, 1996



**Update:** Kristin is responsible for providing all reagents and equipment for our laboratory courses. She provided lab safety training workshops each semester to the chemistry faculty, graduate students and undergraduate research students. Kristin serves as the department's Professional Advisor, Advisement Coordinator, Coordinator of the General Chemistry Peer Mentor Program, and Academic Probation Advisor. She taught two sections of our "Freshmen Chemistry Seminar" course in this past fall semester for our incoming majors. This course provides incoming students a gateway to chemistry course to help smooth their transition and provide opportunities to build a strong cohort of support. She coordinates CHE 302- Career Skills for Chemists in the spring semester. This is a new course we are requiring our students to take to help them with their professional skills before entering the workforce. Kristin works closely with our Career Services and Alumni office to provide our majors with alumni visits. She serves as the club advisor for both the Chemistry Club and the Pre-optometry club. She is active in various committees on campus including advisement practices, the chemical hygiene committee, and the student lab safety committee. She enjoys working with area school teachers to organize science field trips to Shineman. This year she was awarded a grant from the Shineman Foundation to help support her efforts. She continued to supervise 5 work study students this year. Her family is her "spare time". Ryan is going to be a first year student here at SUNY Oswego this fall, majoring in Finance. Emily will be entering 10th grade this fall (and her dog Toby who is now 7). Her husband Ed (Oswego alumn ' 95/ '97) has been with Thermopatch, an Avery Dennison company in Syracuse for 18 years as their Operations Manager.

# Chad Sigindere, Instrumentation Specialist

chad.sigindere@oswego.edu

M.S., University of Pittsburgh, 2017

M.S., SUNY Oswego, 2014



**Update:** Chad continues to maintain a variety of analytical instruments and laboratory equipment in the department. He oversees instrument consumables and specialty gases as well. In addition, he has been servicing the instruments at the Environmental Research Center over the past 2 years. He trains and provides feedback to students on how to operate and properly maintain departmental instruments and equipment. Chad and Tugba have a very curious soon-to-be-2-year-old daughter who isn't scared of heights or water. She likes to scale chairs and furniture, and tries getting into the kitchen sink at any chance she gets. After graduating from SUNY Oswego, Chad did bioorganic research, taught Chemistry and worked at the mass spectrometry facility at University of Pittsburgh. In the years to follow, he worked as a SUNY-ESF adjunct instructor and taught Chemistry in the Syracuse area. He has been with the Chemistry department for over 3 years.

# 2022-2023 Chemistry Degree Candidates (\*Graduated with Honors)

### December 2022

Ceth Deloff- Chemistry BS- Lab Technician at Novelis in Oswego, NY

\*Muhammad Hidoyatov-Chemistry BA- Scientist at ICON in Syracuse, NY

Julia Restani-Chemistry BA

Lauren Root-Chemistry BA- Metal Analyst SGS Galson in Syracuse

\*Zack Summers- Chemistry BS- Research Technician, Honeywell Advanced Materials, Buffalo, NY

# May 2023

Nathaniel Bahr- Chemistry BS-Lab Technician with Cayuga Milk Ingredients, LLC in Auburn NY

Alanna Blenman-Chemistry BA-Lab Technician with Eurofins in North Carolina

\*Raviya Careem-Biochemistry BS- Research Technician at Albert Einstein College of Medicine in Bronx, NY

\*Hana Cheng-Chemistry BS- Northwestern University, PhD Chemistry

Rebecca Eisenberg-Chemistry BS- Hofstra University, MSEd (Chemistry)

Janae Facey-Biochemistry BS

Katie Gilligan-Chemistry BS- SUNY Oswego MS Chemistry

Juliana Jira-Chemistry BS-QC Micro analyst, Regeneron, Rensselaer, NY

\*Elisabeth Lupp-Chemistry BS-Inkjet ink Formulation Chemist at ARMOR-IIMAK

David Menzies-Biochemistry BS- Analyst at ATI Specialty Materials, Lockport NY

Raven Mitchell-Chemistry BA-SUNY Oswego, BS Computer Science

\*Muhammad Musozoda- Chemistry BS- SUNY Oswego MS Chemistry

\*Alexis Rideout-Biochemistry BS- Senior Specimen Management Technician at Rochester Regional Health

Matthew Seyse-Chemistry BS- Analyst at ATI Specialty Materials, Lockport NY

Liam Tovey-Chemistry BS- Buffalo State MS Forensic Science

Julia Van Ness-Chemistry BS-QC Technician at Regeneron for ProPharma in Albany, NY

# MS Candidates May 2023

Ismatou Barry

Marcus Cleland

Sylvia Thompson-Analytical Development Biochemist at Eurofins in East Greenbush, NY

# **Spring 2023 Department Awards**



Willy G. Schuh Outstanding Senior Award

Hana Cheng



Pearle Monroe Scholarship

Cameron Bashaw



Anthony VanGeet Scholarship

Matthew Seyse



Augustine Silveira Jr. Chemistry Scholarship

**Amanda Streeter** 



ACS Analytical Award

Anh Do



ACS Undergraduate Award in Physical Chemistry

Elisabeth Lupp



ACS Undergraduate Award in
Inorganic Chemistry
Liam Tovey



ACS Senior Organic Award

Muhammad Musozoda



ACS Undergraduate Award in Environmental Chemistry Joanna Hiebert

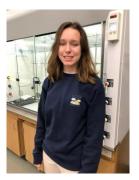


Augustine Silveira Jr. Research Award Matthew Seyse



Francis J. McKeown Scholarship

Andrew Bishuk



Raymond T. O'Donnell Scholarship Cheyenne Titus



Outstanding TA Award
Sylvia Thompson



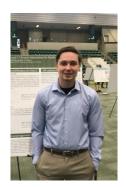
Excellence in Safety Award

Tyler Ziobro



Outstanding Peer Mentor Award

Muhammad Musozoda



2023 Dean's Writing Award

Biochemistry

David Menzies



2023 Dean's Writing Award

Chemistry

Katherine Gilligan

# **Alumni Visits**

Our second annual CHE 302 Alumni Panel took place April 24<sup>th</sup>. We were very happy to welcome back to campus four of our alumni from the Central New York area. This session was a great opportunity for both students and faculty to network with chemistry professionals in our area. Students in attendance were able to ask the alumni questions about their careers and learn about their companies.

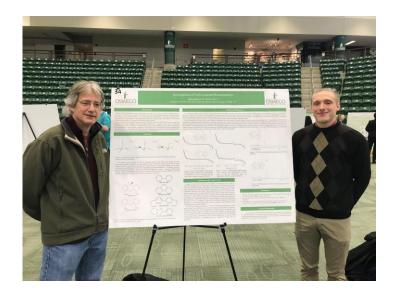
**John Pavel-** Chemistry BS '72 and MS '05-Certified Health Physicist at MJW Corp

**Morgan Wolanin**-Chemistry BS '20-Technical Service Engineer with MacDermid Alpha Electronics Solutions

**Dr. Peter Bocko-** Chemistry BA '75-Retired Chief Technology Officer for Corning Incorporated

**Sarah Rappleye-** Geochemistry BS '20-Lab Technician with Eastman Kodak Company

If you are interested in being a part of the "Celebrate Chemistry Panel" for April 2024, please let us know.







## **ASK Program Visit:**

**Steve Maier ('84 & 87)** has been mentoring junior Chemistry major Tyler Ziobro ('24) through the ASK program. Steve came to campus for Tyler's Quest presentation. If you are interested in participating in our ASK program, please visit our website for more information.

### Alumni Visits cont.

**Peter ('75) and Andrea Bocko ('73/'75)** came back to campus to spend time with our students in September. They are two exceptional alumni who have started a Forever Award Endowed Fund for to support our Chemistry students performing Summer Research.

Dr. Peter Bocko received his BA in Chemistry degree in 1975 from SUNY Oswego. He earned his PhD in Physical Chemistry from Cornell University. He worked for Corning Incorporated for many years, recently retired from the Chief Technology Officer position of the Glass Technologies Group in 2014. He also taught graduate classes at Cornell University. His job has taken him around the world to places like Tokyo and Japan. Andrea Guglielmo Bocko obtained both her undergraduate degree and Masters degree from Oswego in 1973 & 1975. She was profoundly influenced by one of our chemistry professors, Dr. Gus Silveira... and from her two decades as a high school science teacher and her work with an after-school program for students in Japan, Andrea has witnessed the benefits of hands-on, minds-on learning, and how these kinds of projects can ignite curiosity, develop confidence and encourage deeper learning in students.

During their visit, they met with our general chemistry students and our organic chemistry students in their lectures and had lunch with students, faculty, and staff.

They also did a pod cast with our Alumni and Development Office and some of our Summer 22 Research Students in the WTOP studio. The recording can be found here: https://alumni.oswego.edu/s/1552/bp18/interior.aspx?sid=1552&gid=1&pgid=4178

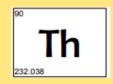




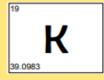










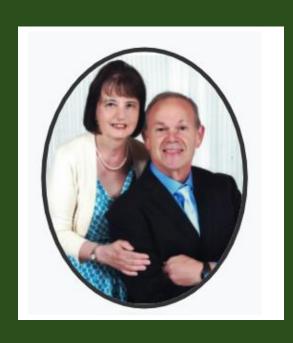








Peter '75 & Andrea Guglielmo Bocko '73 M'75 for their Forever Award Endowed Fund to support our Summer Research Program





Devon Seale ('24)

Peter '75 and Andrea Guglielmo Bocko '73 M'75 2022 Award Recipient

**Dr. Thomas Mahl (Class of 1980) visited with our summer research students in June.** Dr. Mahl earned a BS in chemistry at Oswego, and then went on to earn his MD from the University of Buffalo in 1984. Currently Dr. Mahl is the chief of gastroenterology Medicine at ECMC, a hospital that serves the eight counties of Western New York, as well as Southern Ontario. He is also a Professor of Clinical Medicine at the University at Buffalo. He teaches the medical students, in the classroom and in the clinic, how to diagnose and treat liver disease. We love when our alumni come back to visit.





# **Chemistry Club News:**

The club started out the school year with a Welcome Back Party in September. This event included trivia, refreshments, and prizes. They celebrated National Chemistry Week in October with live Chem Clash night with the ACS and a Tie-Die Activity. Kristin Gublo was the club's guest speaker for their annual Graduate School Program which was held in October. And new this year, the club sponsored an Internship Information Program in November where the student could learn about internship opportunities in Oswego for chemistry. The club celebrated the December 22 graduates with an end of the year holiday party.

In the spring semester, the Chem Club raised \$100 from their annual chemistry valentine sale. They decided to donate the money this year to Paws of Oswego County. Some of our members competed in the campus Engineering Week in a contest against other STEM clubs to build Electromagnets. Guess who came in first place? Members of the club also Chem Club of course. performed hands-on chemistry activities at Kingsford Park Elementary's first STEAM night as a way to spread the love of science to local school children. The club sponsored our Department Research Party in April to introduce the juniors to research opportunities for the 23-24 school year. Liquid nitrogen ice cream was a big hit as always. They all enjoyed the end of the year party in May to celebrate our Class of 2023. A good year it was!















# Dr. Gary Baker '95 was the 2023 Recipient of the SUNY Oswego Distinguished Alumnus Award

Gary earned a BS in chemistry at Oswego, and then went on to earn his Ph.D. in Analytical Chemistry from the University of Buffalo in 2001. He did a Postdoc at the Los Alamos National Laboratory in New Mexico, then worked as a Research Scientist at Oak Ridge National Laboratory until 2011. Dr. Baker joined the University of Missouri in 2011 as an Assistant Professor of Chemistry. He is currently an Associate Professor in the same department. He is a leader in fields like nanochemistry and ionic liquids. Gary has over 300 scientific publications in the fields of ionic liquids and nanochemistry, and received numerous awards and honors. He graduated 9 PhD and 3 MS students that are currently employed in academia and industry. Congratulations Gary!

He came back to visit the department in November as part of our seminar series. The title of his talk was "Artificial polyionic nanoclays as programmable platforms". Also during his stay we also visited students in general chemistry, organic chemistry, and analytical chemistry. If you are interested in participating in our seminar series, please reach out to Kristin Gublo, kristin.gublo@oswego.edu.





# In Memoriam

We are sad to share the news of the passing of Paul Lupa in May of 2023. Paul was our Instructional Support Specialist from 1969-1998. He retired in 1998 after a 29 year long career. Paul was a graduate of Oswego High School and earned his bachelor's degree from SUNY Oswego.

Left to Right: Paul Lupa and Fred Scoles at Fred's retirement party in 2019.



# **Commencement May 2023**



















# **Quest 2023**

Quest was held April 19, 2023. Dr. Kestas Bendinskas did an amazing job again this year organizing Quest for our campus. Did you know that Quest started back in 1980 and it has been a tradition ever since?

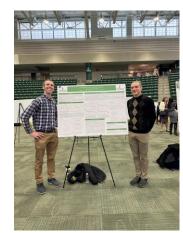


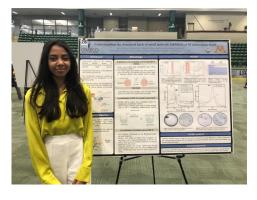


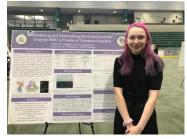


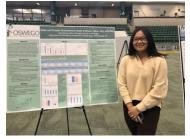


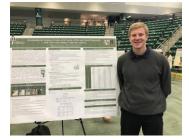


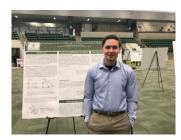












### **Best Chemistry Presentation:**

Cocrystallization of
Long Chain Alkyl Halides
with 2-mercaptothiazolium-based
lonic liquids
Presenter:

Muhammad Musozoda

Research Advisor: Dr. Arsalan Mirjafari

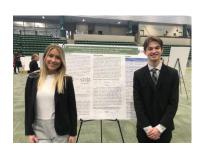


### **Best Chemistry Poster:**

Improving Reaction Conditions for the Production of a Degradable Polyester

Presenters: Elisabeth Lupp and Nathan Bahr

Research Advisor: Dr. Matthew Baker



# Other Events:



Jonathan Simpson and Liam Tovey presenting their poster on Diphenylhydramine to Dr. Haddadi

On September 9<sup>th</sup>, our **Scholarly and Creative Activities Symposium** took place in the Sheldon Ballroom. Students that conducted research during the summer of 2022 presented their work to the campus community.

Chemistry students that presented included:

- -Marcus Cleland and Joanna Hiebert (Niri)
- -Anh Do and Owen Spearing (Ounkham)
- -Devon Seale and Vikrant Jandev (Bendinskas)
- -Liam Tovey and Jonathan Simpson (Haddadi)
- -Matt Seyse and Sylvia Thompson (Haddadi)
- -High School student: Victor Sabirianov (Koeppe)

**Honors Convocation** took place in April. The event takes place the Friday afternoon during Quest Week. The campus community and the student's families are all invited to celebrate these student's accomplishments.

Our **Department Seminar Series** was very active this school year. So nice to be able to have all of these speakers in person again. Our students had to chance to meet so many scientists. Dr. Julia Koeppe and Dr. Arsalan Mirfafari coordinated the program this year.



Jessica Robbins-Bard College Big Problems Call for Big Molecules: Functional Polymers for Medical Diagnostics and Environmentally



Ganesh Anand -Penn State Virus breathing, metastability and epitope dynamics by integrative mass spectrometry and cryo-EM



Dan Blair-St.Jude Research Hospital *Modularized Molecule Making* 



Jochen Autschbach University at Buffalo Fertilizers, explosives, and why relativity starts your car



Jerry Feigenson-Cornell The Biological Cell Plasma Membrane from the View of Physical Chemistry



If you are interested in being a guest speaker for our seminar series in the future, please let us know.

# **Summer 2023 Research Program:**

The department was happy to welcome 16 Chemistry students to campus this summer to offer them a research experience with our faculty. We would like to thank the following programs for supporting our students, Dr. Peter Bocko '75 and Andrea Guglielmo Bocko '73 Research Awards, The Bocko Forever Award Endowed Fund for Summer Research, Dr. Alan Ewart Award, Dr. Augustine Silveira Research Award, Graduate Chemistry Research Awards, Math and Science Research Awards, and SCAC grants from our ORSP office.





The Baker Group



The Bendinskas Group



The Koeppe Group



The Niri Group



The Raymond Group



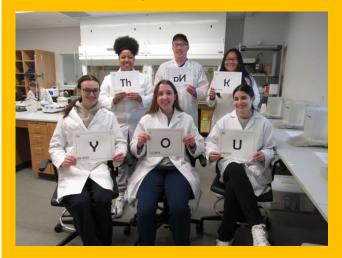
The Haddadi Group



The Mirjafari Group

# THANK YOU TO OUR DONORS

We would like to thank everyone that made donations to our department last year. We utilized this money to support extra programs and to supplement our department budget.



Back row: Janae Facey ('23), Raven Mitchell ('23), Hana Cheng ('23) Front row: Julia Van Ness ('23), Juliana Jira ('23), Rebecca Eisenberg

# Thank you to our 2022-2023 Donors:

\*Ruth Baltus \*John Nosal

\*Neda Finney \*Christopher Pitts

\*Kristin & Ed Gublo \*Jay and Kathryn Tunkel

\*Kevin & Sherry Jensen \*Lawrence Wilson

\*Robert Morse \*Mary Warchal-Windham

# How to Make a Donation:

If you are interested in making a gift to the college to support the department, you can go to alumni's secure on-line website (www.oswego.edu/givenow). To allocate the donation to our department, simply specify "Other Designation". You have four options available: Chemistry Department, a Chemistry Scholarship, the Augustine Silveira, Jr. Research Scholarship Fund, or the Chemistry Summer Research Fund. Checks can be made out to "Oswego College Foundation, Inc." and can be mailed to: University Development, 219 Sheldon Hall, Oswego, NY 13126. Please write your designation in the memo line.

Please send in an update for our next newsletter. We love to hear from our alumni.

MAIL or EMAIL or ONLINE FORM

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Susan Barvinchak
(department secretary) at:
chem@oswego.edu

This can be found on our
Chemistry Department
Website under "After Oswego"