

SUNY OSWEGO DEPARTMENT OF CHEMISTRY NEWSLETTER

ACADEMIC YEAR

2021-2022

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LETTER FROM THE CHAIR:

We have very good news to share with our alumni as we embark on after-covid years. We started strategically looking at our offerings and job growth potential for the next ten years. Based on our discussions, we decided to offer our environmental track as its own BS Environmental Chemistry degree to attract students with more interests towards environmental issues. We plan to revise the curriculum once the changes are approved by the state. In addition, we decided to offer a BS Materials Chemistry degree and created four new courses, including an advanced materials chemistry lab. This is still in the making to be offered within a year once approved by governance and the state. In addition, the Chemistry department took over the Geochemistry BS program. Since about half of our students work in industry after graduation, we decided to collaborate with the MBA program to offer 4+1 program to our chemistry majors. They will have their chemistry degree, plus business minor and MBA in a total of five years.

We are adding new faculty into our staff line as we had few retirements in the last few years. A new Materials Chemistry Faculty Dr. Arsalan Mirjafari will start as Shineman Professor in the fall semester. We plan to hire the following faculty members next year: a director of environmental chemistry research, a tenure-track analytical chemist, and a tenure track physical chemist (in the area of computational chemist, subject to final approval). These additions will make the department more vibrant, young, and more research diverse.

Every year, one of our staff or faculty receives an award for their contribution to campus and the students. Dr. Shokouh Haddadi received her tenure and was promoted to Associate Professor and she also received Mentor Award in Scholarly Activities.

With the largest donation from Peter and Andrea Bocko (\$500,000 endowment, in addition to their annual giving of \$25,000 for this year), we were able to increase the summer research stipends to allow students to work full time in labs rather than multiple jobs over the summer. In addition, Dr. Gus Silveria created an endowment for one of the large lecture halls in Shineman to be named after Bev and Gus. Any of the unused funds in this endowment will also support the chemistry labs infrastructure, such as equipment replacements.

All of our alumni donations go directly to our undergraduate and graduate students; either for their summer stipends or research-related expenses. I will ask for you to utilize your company's matching donation policies to help these young minds. We have an alumni speaker's program: We ask our alumni to speak to our majors talking about their experiences as students and how their life has been shaped since they graduated from Oswego. If you are interested, please drop us an email to set up your in-person or online meeting. There is so much exciting news related to our faculty and programs; such research funding, publications, sabbaticals, summer research, new collaborations, and international trips.

Please enjoy reading our annual newsletter and continue to support SUNY Oswego Chemistry Department and Students.

Faculty and Staff

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 biodegradable and environmentally friendly plastics, as well as, polymers with sensing capabilities. Additional interests include the development of application-based organic and polymer chemistry teaching laboratory experiments.

Updates:

Dr. Baker has enjoyed mentoring four students over the past year. During this time, his students were busy working on photo-degradable, environmentally-friendly plastics and materials with sensing capabilities. As a result of their productivity, his students presented their work at a local symposium, and Dr. Baker presented the group's work at the spring National American Chemical Society meeting. Dr. Baker has also continued his research in the development of polymer chemistry content for the undergraduate curriculum. This work has led to the development of labs allowing students to create moldable plastics, hydrogels, and biodegradable plastics. These combined research efforts have rewarded Dr. Baker and his students with two publications: "Development of a Photo-degradable Polyester Resulting from the Homopolymerization of o-Hydroxycinnamic Acid", and "Synthesis, Characterization, and Processing of an Acrylic Thermoplastic: Radical Polymerization of Butyl Methacrylate". In addition, Dr. Baker and his wife recently welcomed the newest member of their family, Ezra Baker, making for a very exciting summer!

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 start with an unexpected personal development first. Dr. Kestas- with the strong support and encouragement from our Chair-created Stress Bioanalytics LLC, which will provide internship experiences for our chem and biochem majors in Oswego while processing samples for a multitude of national studies, assessing hair and nail cortisol concentrations. It's somewhat of a clone of his research laboratory in Shineman but lab coats are black, not white, tubes are orange, not blue, vortexes, readers, pipetters, and all other lab equipment are made by manufacturers that are intentionally different from equipment in the academic laboratory. It was accumulated over this spring in his garage mostly from Amazon and e-bay and is now installed in a freshly-painted laboratory on 185 E. Seneca St. in Oswego. All paperwork for the DOI management plan is expected to be signed by the time you read it, which means that samples are being processed, and some students are getting internship credits while earning \$20/hr and health insurance out of it. With two of our students as co-authors, Kestas published a peer-reviewed paper entitled "Social stressors, a rboviral infection, and immune dysregulation in the coastal lowland region of Ecuador: A mixed methods approach in ecological perspective" in the *American Journal of Tropical Medicine and Hygiene*. Two more interesting developments: Dr. Bendinskas was elected to serve on the board of SUNY Distinguished Academy. Also, remember Quest? Dr. Kestas was asked to run Quest on the entire campus this past year. It was run as a hybrid event this year, where students and parents could attend Quest either in-person or via Zoom. Kestas continued serving as the Executive Editor of the *American Journal of Undergraduate Research* (AJUR) which publishes peer-reviewed internationally-indexed manuscripts quarterly.

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 fifth year as tenure-track faculty with the Chemistry Department at SUNY Oswego. He had the joy of mentoring several research students which included seven undergraduate students (Alex, Ismatou, Christina, Matt, Fiona, Tyler, and Cheyenne) and two graduate students (Vaea and David). Vaea and David have completed their Master's degrees under Tom's supervision with the anticipation of finding positions within industry. This past year, Tom returned to in-person teaching and offered General Chemistry I & II with Lab, Inorganic Chemistry with Lab, and Chemical Applications of Group Theory. 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, the Brown lab presented research at the Rochester Academy of Science upon the Scott Test and its color changing process. Matt and Fiona did a wonderful job presenting the project and incited lovely discussions. Research, teaching, and committee work have kept Tom afoot with a smile on his face. Additionally, Tom was elected to the Institute of Chemistry of Ireland as a full member. Tom is looking forward to the next academic year and is excited to meet all the new students as well as welcome back the returning students.

Fehmi Damkaci, Professor, Organic Chemistry

fehmi.demkaci@oswego.edu

Post-doctoral fellow, Boston College, 2004-2006

Ph.D., University of Maryland, College Park, 2004

M.S., University of Maryland, College Park, 2000



Research Interests:

Synthesis of designer polymeric nanoparticles to act as targeted drug delivery systems, total synthesis of heterocyclic natural products with medicinal and/or structural importance, and copper and iron catalyzed reactions, including heteroaryl couplings, heteroaryl ring formation, and C-H activation using N-pyridylurea derivatives as ligands.

Update:

Most of his time this year was spent on strategic program development and leading the discussion; such as creation of new materials chemistry program, 4+1 chemistry/MBA program, inclusion of Geochemistry program, etc. Dr. Damkaci worked with two undergraduate students. His new research focuses on alpha-coupling of ketones with alcohols or aldehydes using copper and NPPA as a catalytic system. He continues to collaborate with Dr. Michael Knopp on research projects during summer and breaks as he joins Dr. Damkaci's group in Oswego. He has been the president of a national non-profit organization (www.terraed.org) located in Syracuse creating several STEM hands-on opportunities for students. Dr. Damkaci created a journal for high school research (ijhighschoolresearch.org) to publish high quality research accomplished by high school students and let them gain publishing skills. Dr. Damkaci organizes regional STEM fairs (terrafaire.org) in New York City, Rochester, Potsdam, and supports STEM Fairs in Buffalo and Dutchess County. His organization also provides capacity building grants for CNY public schools to develop hands-on STEM opportunities for its students. Dr. Damkaci organized the 11th GENIUS Olympiad with more than 1400 projects from 59 countries. He is working on expanding the GENIUS Olympiad to be hosted by individual countries where all students in the country are eligible to compete to advance to the international GENIUS Olympiad.

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 during the Fall semester and advanced forensic chemistry graduate course as well as analytical chemistry and forensic chemistry undergraduate courses during the Spring 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 2022. In Fall 2021 she received the Faculty Scholarly and Creative Activity Grant and she has been working with one graduate and one undergraduate student who received the Faculty-Student Challenge Grant and two undergraduate students who received the departmental grants, on two different forensic analytical projects this summer. She was also involved with the Chemistry Summer Research Program for High School Students this summer and together with Dr Niri, they worked with three highschool students on a forensic science project. Dr Haddadi has ongoing projects and the results of one of her current projects was presented in the American Chemical Society (ACS) Fall 2021 meeting by her graduate student, Shelby Barnes and the results of a second project was presented by herself in the ACS Spring 2022 meeting. Dr Haddadi, published a review paper on VOC biomarkers of cattle diseases in Journal of Analytica Chimica Acta in Spring 2022. Dr Haddadi is grateful to have received the Provost's Award for Mentoring in Scholarly and Creative Activities in Spring 2022. 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:

It was another productive year in my research lab. I had 11 students working with me, with 6 of those working on Capstone projects while another 4 were MS students. Several students in the lab continued to study enzymes of unknown function, and we now have good functional data for a few different enzyme structures. We began making mutations to some of the predicted active site amino acids for these enzymes to help us confirm the location of the active site. We also continued to study interactions among complement proteins using surface plasmon resonance, and we will soon expand our study to include complement component 3, complement factor H, and thrombomodulin. Some conferences were held in person, and I was able to present two posters on my teaching and research at the annual meeting of the Biophysical Society in San Francisco in February 2022. I also gave a talk and hosted a workshop on teaching biochemistry at the Middle Atlantic Regional Meeting of the ACS in New Jersey in June 2022. Additionally, I hosted several online workshops to teach faculty about the biochemistry lab curriculum I have developed with my collaborators. I was back to teaching courses in biochemistry and biophysics in person this past year. It was nice to see students in the classrooms and the labs again ready to learn!

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:

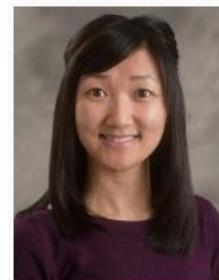
Dr. Niri has been active in research by supervising 1 graduate student and 5 undergraduate students in their research projects in the area of analytical chemistry during last fall and spring semesters. He also worked with two research students during the summer. His research group worked on different projects such as the effect of phenolic compound concentrations in staghorn sumac seeds on the winter foraging behaviors of birds, analyzing drugs in biological samples, and analysis of microbial volatile compounds from mold samples. He has been also collaborating with Dr. Haddadi from chemistry department, Dr. Poongodi from Biological Science department and Dr. Michael Schummer for SUNY-ESF. The results of the research project have been presented on-campus and regional meetings. Dr. Niri also received a Shineman Endowed Fund Grant entitled "Chemistry Summer Research Program for high school students" to host high school students in the chemistry department in summer 2022.

Presentations (presenters are underlined):

1. V. Niri, M. Schummer, H. Russell, S. Krebs, S. McNamara, Effect of phenolic compound concentrations in staghorn sumac seeds on the winter foraging behaviors of birds, *263rd American Chemical Society National Meeting*, San Diego, CA, March 20 - 24. (*virtual presentation*)
2. M. Gysbers, S. Haddadi, V. Niri, Amino acids in latent fingerprints to differentiate female and male subjects: Optimization of the method, *QUEST symposium*, SUNY-Oswego, April 6, 2022 (*Oral presentation*)
3. S. McNamara, Marcus Cleland, V. Niri, The effect of phenolic compound concentrations in Staghorn Sumac seeds on the winter foraging behaviors of birds, *QUEST symposium*, SUNY-Oswego, April 6, 2022 (*Oral 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 fourth year with the Chemistry Department at SUNY Oswego. It has been a productive year of research due to the hard efforts of her research students Zack, Anh, Thao, Owen, and Ceth. Their hard work has led to interesting results with respect to the development of water-soluble catalysts for aqueous-phase nitrile hydration. The work from the Ounkham Lab has been supported by a SCAC grant allowing for student support and the purchase of materials. 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 was also invited by the ALANA organization to participate as a panelist discussing the journey of a First-Generation American, First-Generation College student in the United States. She was very honored to share her story and to have had the opportunity to inspire the students around her. Linglee will be welcoming back her research group along with some new members. Linglee has enjoyed her time at Oswego so far and looks forward to continuing the adventure through the next academic year.

Casey Raymond, Associate Professor, Inorganic Chemistry

casey.raymond@oswego.edu

Post-doctoral fellow, Northwestern University, 1996–1998

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:

We've made some progress on our polyoxometalates project and a few of us have developed a new electrochemistry experiment for general chemistry, thanks to 3D printing. Teaching was still challenging due to Covid and I held many classes with a face-to-face lecture, while recording the lecture, and having some students live in Zoom. Dealing with questions became challenging at times, but the students took it in stride. My service load picked up this year as I led a departmental faculty search, participated in 3 other departmental searches, and I was elected to serve on the search committee for the new campus president. I also was selected to lead the 2022 Faculty Accessibility Fellows. Away from campus we lost Rosemary to a very aggressive tumor. After which Puma, now a solo cat, became velcro kitty and it was clear he wanted companions. We were able to adopt 2 cats, from a hoarding situation, and Tortellini and Rigatoni have settled making Puma a more happy cat. We've continued riding our tandem and have competed the Erie Canal Trail from Tonawanda to Peebles Island. As of the end of July we have over 800 miles ridden this summer.

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



Research Interests: The determination of arsenic and lead in soils of Rice Creek Field Station, the study of carbohydrate composition of beer, and the investigation of the effect of boiling times on the isomerization of alpha acids in hops.

2021-2022 Chemistry Degree Candidates (*Graduated with Honors)

December 2021

Elizabeth Akeloko	Chemistry BA	
Matthew Bailey	Chemistry BS	
Ismatou Barry	Chemistry BA	SUNY Oswego, MS in Chemistry
Clara Boafo	Biochemistry BS	Lab Clerk, Saint Barnabas Hospital, Bronx, NY
Tatiauna Brown	Biochemistry BS	Accessioning Technician, Fulgent Genetics, Houston TX
Tanashia Burrell	Chemistry BA	
Robert Castillor	Biochemistry BS	
Eric Decker	Biochemistry BS	
Stephany Pincay	Biochemistry BS	
Mikaya Punzalan	Chemistry BA	
Christina Saint Louis	Chemistry BA	Mallinckrodt Pharmaceuticals, QC Chemist
Kiersten Walker	Chemistry BS	
*Angela Wu	Biochemistry BS	

May 2022

Katherine Abel	Chemistry BA	
*Emily Ashlaw	Biochemistry BS	Syracuse University, Chemistry PhD
*Katherine Brand	Biochemistry BS	Syracuse University, Chemistry PhD
*Kyle Burley	Biochemistry BS	SUNY Oswego, MS in Chemistry
*Slater Bushen	Biochemistry BS	
Taylor Coiner	Chemistry BS	SUNY Oswego, MST in Chemistry
Nana Dwomoh Osei	Biochemistry BS	SUNY Albany Pharmacy Program
Sean Erhardt	Biochemistry BS	
*Kevin Farrell	Biochemistry BS	SUNY Stony Brook, Biochemistry and Structural Biology, PhD
*Lindsay Fluman	Geochemistry	Lab Technician, Terracron, Rochester, NY
Morgan Gervasi	Biochemistry	
Chelsea Gomez	Chemistry BA	American University of Antigua College of Medicine, MD program
*Michaela Gysbers	Biochemistry BS	Virginia Commonwealth University, M.S. in Forensic Science
Robert Hoden	Chemistry BA	
*Vikrant Jandev	Biochemistry BS	Laboratory Technician, Chemistry, SUNY-Oswego
Jon'Renee Jones	Biochemistry BS	
*Samantha Justiniano	Geochemistry	Environmental Specialist, Triumvirate Environmental
Skylyn McNamara	Chemistry BS	SUNY Oswego, MS in Chemistry
Erin Muhleisen	Chemistry BA	Hospital in Georgia
Alexander Padilla	Chemistry BS	University of Notre Dame, PhD in Chemistry
*Namrata Pokharel	Biochemistry BS	Laboratory Technician, Columbia University
*Johann Roque	Chemistry BS	University of Notre Dame, PhD in Chemistry
Anthony Treigle	Biochemistry BS	
Flemmie Tyson-Jones	Chemistry BA	

August 2022

Page Hazen	Chemistry BA	SUNY Optometry, OD
Allison Cleary	Biochemistry BS	
Emma Smoot	Chemistry BA	

MS Candidates May 2022

Shelby Barnes	Chemistry MS	Norwich Pharma
Tim Bodah	Chemistry MS	
Dave George	Chemistry MS	
Jenell Gerow	Chemistry PSM	Fresenius Kabi Grand Island NY, Quality Assurance Compliance Specialist
Anthony Pompa	Chemistry MS	Penn State, PhD in Chemistry
Christopher Serrano	Chemistry MS	
Michael Scott	Chemistry MS	Zetagen Therapeutics, Syracuse, NY

Spring 2022 Department Awards



Willy G. Schuh Outstanding Senior Award

Kevin Farrell



Pearle Monroe Scholarship

Muhammadzohir Hidoyatov



Anthony VanGeet Scholarship

Page Hazen



Augustine Silveira Jr. Chemistry Scholarship

Hana Cheng



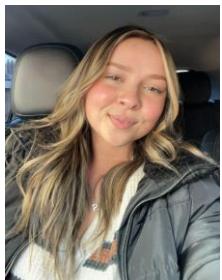
ACS Analytical Award

Muhammadiqboli Musozoda



ACS Undergraduate Award in Physical Chemistry

Alexis Rideout



ACS Undergraduate Award in

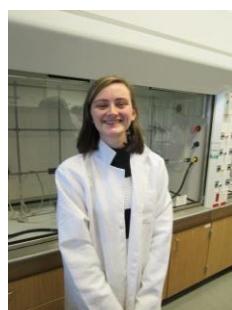
Inorganic Chemistry

Samantha Justiniano



ACS Senior Organic Award

Johann Roque



ACS Undergraduate Award in Environmental Chemistry

Skylynn McNamara



Francis J. McKeown Scholarship

Fathima Raviya Careem



2022 Dean's Writing Award

Biochemistry

Slater Bushen



2022 Dean's Writing Award

Chemistry

Taylor Coiner



Outstanding TA Award

Shelby Barnes



Excellence in Safety Award

Namrata Pokharel



Outstanding Peer Mentor Award

Katherine Brand



**Augustine Silveira Jr.
Research Award**

Vikrant Jandev



**Augustine Silveira Jr.
Research Award**

Ceth Deloff

Alumni Visits

Chris Winn '15, an account manager at Waters Corporation came to campus on November 15th to talk with our students about his career path and experiences in graduate school. He visited with our freshmen in CHE 110, sophomores in CHE 331, and our seniors in CHE 425. After earning his BS from SUNY Oswego, he earned a master's degree in Chemistry from SUNY ESF. Prior to his job with Waters, Chris worked as an HPLC analyst at SGS Galson and for Anheuser Busch.



Our first CHE 302 Alumni Panel took place April 25th. We were very happy to welcome back to campus six of our alumni working in 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/companies.

From left to right: **Francesco Papa** (**Biochemistry BS '19**) Sales Consultant, Representing DePuy Synthes Joint Reconstruction, **Sam VanDee** (**Chemistry BS '98**) Senior Forensic Chemist, Onondaga County Center for Forensic Sciences, **Jessica Vaughn (Blodgett)** (**Biochemistry BS '13 and MS '15**) Investigation Specialist, Regeneron Pharmaceuticals, **Colleen Alexander, PhD** (**Biochemistry BS '09**) Sr. Manager, Global Regulatory Strategy & Delivery at Baxter International, **Steve Maier** (**Chemistry BS '84 and MS '87**) Principal Scientist, Bausch & Lomb, and **Devin Busch** (**Biochemistry BS '15**) Senior Analytical Chemist, Regeneron Pharmaceuticals.

Steve Maier ('84 & 87) has been mentoring our student Tyler Ziobro ('24) through the ASK program. They were finally able to meet in person this year during his visit. If you are interested in participating in our ASK program, [please vist our website for more information.](#)

Sam VanDee ('98) visited Dr. Haddadi's Forensic Science lab while he was here. Sam was talking to Biology major Michael Boardman about his glass analysis experiment. Sam's son Connor will be attending SUNY Oswego this fall to study Technology Education.

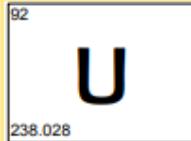
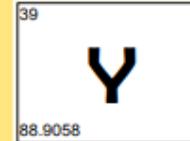
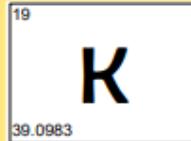
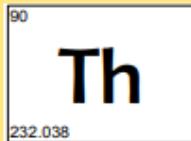


2022 Augustine Silveria Lecturer

Dr. Tony Dufour (Class of 2005)

This lecture series is named after Dr. Augustine L. Silveira Jr., a popular and distinguished teaching professor of chemistry. He received more than 50 grants and awards during his 38 years at Oswego before his retirement in 2000. The lecture series was established by **Thomas Weil '66** in honor of his mentor; other alumni have also contributed to the fund, including **Colleen Enwright O'Leary '74**. This was our first year having this lecture in the newly named **Dr. Augustine and Beverly Silveira Lecture Hall**. Dr. Silveria and his wife made a very generous donation to the college this year. They were able to zoom in from their home in sunny California for Dr. Dufour's lecture. Our invited guest lecturer this year was Dr. Tony Dufour. He is currently an Assistant Professor at the University of Calgary. Tony graduated from Oswego with his Bachelor of Arts degree in Chemistry in 2005. He did research for Dr. Martha Bruch analyzing the structure and dynamics of the antibiotic peptide polymyxin B using NMR. He was a Presidential Scholar, Chancellor Award Winner, and member of the Men's Hockey Team. He graduated from SUNY Stony Brook with his PhD in Chemical Biology. His thesis involved Metalloproteinases in Cell Migration. He completed his Post Doc at the University of British Columbia. He has been at the University of Calgary since 2017. He has numerous grants, 30+ publications in his field, authored books, has 2 patents, and has been invited to speak all over the world. The title of his talk was "Playing the game of Pac-Man with molecular scissors". We were very thankful for his visit. During his two day stay, he was able to interact with many of our students.



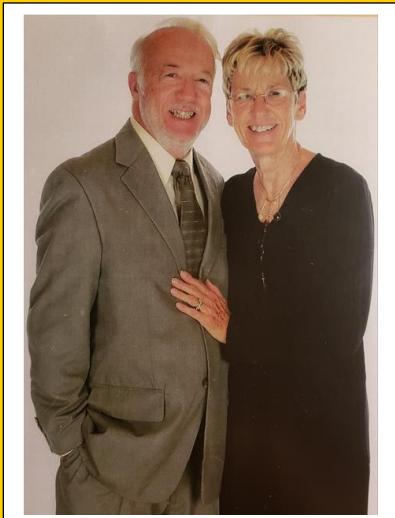


Peter '75 & Andrea Guglielmo Bocko '73 M'75
for their Forever Award Endowed Fund to support our Summer
Research Program



Nana Dwomoh Osei ('22)
Peter '75 and Andrea
Guglielmo Bocko '73 M'75
Award Recipient

Augustine and Beverly Silveira
for their generous gift to SUNY Oswego



Thank you so much
for your
exceptional support
of learning here at
SUNY Oswego!



Chemistry Club News:

The club was so excited for the go ahead to bring back in-person events this year. They started out the school year with a Welcome Back Party in September. This event included demos, movie trivia, refreshments, and prizes. They celebrated National Chemistry Week October 18-22 with live trivia night with the ACS, scavenger hunt on Mole Day and other contests throughout the week. The club received an award this year at the annual Student Involvement Award Ceremony for **Outstanding Outreach Project** for their "Science is Lit' book drive. The club gifted a new book about science to each preschooler attending our Children's Center on campus. They wanted to celebrate NCW by sharing the joy of science & reading to kids in our community. Some members of the club formed a team in a campus volleyball tournament. Way to represent Chem Club! Dr. Brown was the club's guest speaker for their annual Graduate School Program which was held in November. The club celebrated the December 21 graduates with an end of the year holiday party. Congrats to Dr. Brown and Page Hazen ('22) for winning this year's Ugly Sweater contest.

In the spring semester, the Chem Club raised \$50 from their annual chemistry valentine sale. They decided to donated the money this year to Children's Museum of Oswego. Members of the club later performed hands-on chemistry activites at the CMOO on their day off on Good Friday as a way to spread the love of science to the kids visiting the museum that day. The club sponsored our Department Research Party on April 1st to introduce the juniors to research opportunities for the 22-23 school year. Liquid nitrogen ice cream was brought back after a couple years off! They all enjoyed the end of the year party in May to celebrate our Class of 2022. A good year it was!



Pre-optometry Club:

A special congratulations to Page Hazen ('22). She has been accepted to the OD program at SUNY Optometry for Fall 22. This spring Kimberlyn Sprague ('20) came back to campus to offer a mentoring session to the club members. Kimberlyn is starting her third year in her optometry program at MCPHS. The club also sponsored program information visits this year from Salus University and from SUNY Optometry.

Congratulations to Garrett Hausman ('20), Kimberlyn Sprague ('20), Veronika Malinowski ('19) and Callista Wlaschin ('20) on getting their on their White Coats this year at Massachusetts College of Pharmacy and Health Sciences (MCPHS).

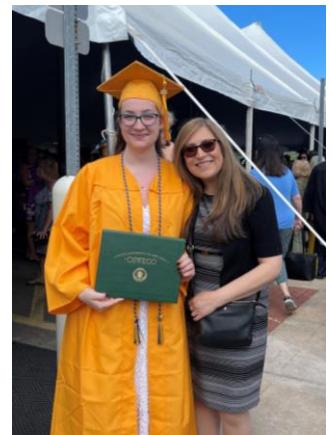
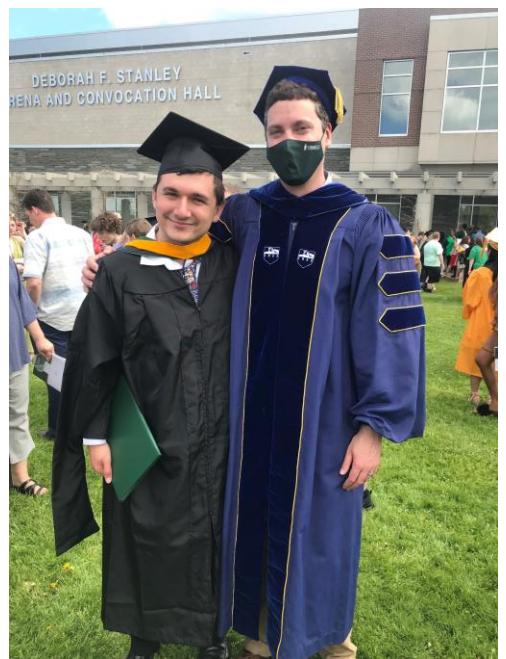


Congratulations are in order for Dr. Shokouh Haddadi



This year Dr. Haddadi received tenure and was promoted to Associate Professor. She also received the Provost's Award in Mentoring in Scholarly and Creative Activities.

Commencement May 2022



Quest 2022 Presenters:

Determining the enzyme function of structure 3CBW

Presenter: Slater Bushen

Research Advisor: Dr. Julia Koeppe

CFH Expression and Purification

Presenters: Kevin Farrell & Chelsea Gomez

Research Advisor: Dr. Julia Koeppe

Determining The Function of 3DS8

Presenter: Lauren Root

Research Advisor: Dr. Julia Koeppe

Copper-catalyzed α -Alkenylation of Ketones Using Primary Alcohols and Primary Aldehydes

Presenter: Muhammadzohir Hidoyatov

Research Advisor: Dr. Fehmi Damkaci

Detecting Cortisol Using LCMS/MS

&

Improving SARS-CoV-2 Detection Methods

Presenter: Vikrant Jandev

Research Advisor: Dr. Kestas Bendinskas

Validation Experiments for Cortisol Extraction in Nails

Presenter: Katherine Brand

Research Advisor: Dr. Kestas Bendinskas

Analysis of a Photo-Degradable

Presenter: Johann Roque

Research Advisor: Dr. Matthew Baker

Synthesis and Characterization of Water-Soluble Ruthenium Complexes

Presenter: Ceth Deloff

Research Advisor: Dr. Whalmany Ounkham

Exploring the Use of Latent Fingerprints to Differentiate Female and Male

Subjects

Presenter: Michaela Gysbers

Research Advisor: Dr. Shokouh Haddadi and Dr. Vadoud Niri

The Effect of Phenolic Compound Concentrations in Staghorn Sumac Seeds on the Winter Foraging Behaviors of Birds

Presenter: Skylyn McNamara

Research Advisor: Dr. Vadoud Niri

Development of a Detection System via a Degradable Coumarin-based Polymer

Presenter: Emily F. Ashlaw

Research Advisor: Dr. Matthew Baker

Male and Female Testosterone Levels in Blood, Saliva, Hair, and Nails

Presenter: Hana Cheng

Research Advisor: Dr. Kestas Bendinskas

Development of an Environmentally Friendly Material from Lipoic Acid

Presenter: Nana Dwomoh Osei

Research Advisor: Dr. Matthew Baker

Introduction to Crystallography for Undergraduates

Presenter: Morgan Gervasi

Research Advisor: Dr. Thomas Brown

2022 Quest Sigma Xi SUNY Oswego Chapter Award

Best Chemistry Presentations:

Determining the enzyme function of structure 3CBW

Presenter: Slater Bushen

Determining The Function of 3DS8

Presenter: Lauren Root

Research Advisor: Dr. Julia Koeppe



Best Chemistry Poster:

Development of a Detection System via a Degradable Coumarin-based Polymer

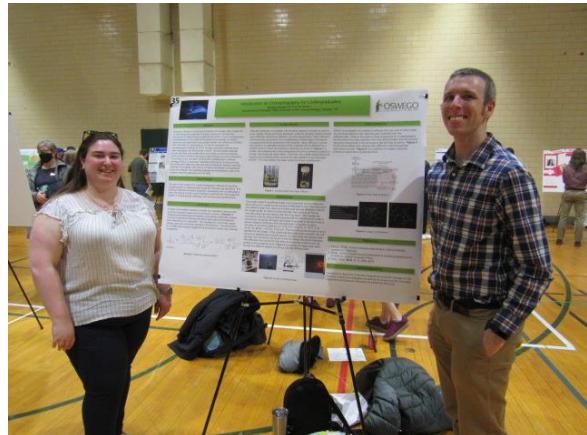
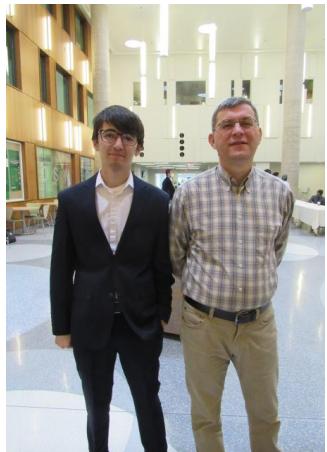
Presenter: Emily Ashlaw

Research Advisor:
Dr. Matthew Baker



Quest 2022

Quest was held April 6, 2022. We were happy to be back presenting in person after two years away.

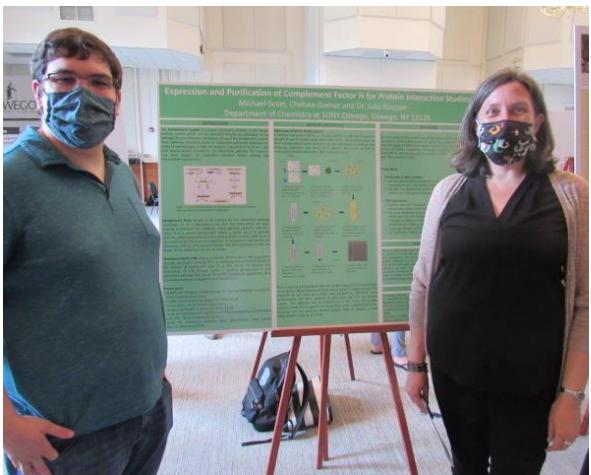


The keynote speaker for Quest 2022 was:

Dr. Stan Whittingham
SUNY Binghamton
(2019 Chemistry Nobel Laureate)

His talk was titled "Climate Change and the Electric Century". A few of our chemistry students had the opportunity to have lunch with him that day. This year Dr. Bendinskas served as Director of Quest and RISE department. Kristin Gublo served as our Quest Departmental Representative.

Other Campus Events:



On September 17th, our Scholarly and Creative Activities Symposium took place in the Sheldon Ballroom. Students that conducted research during the summer of 2021 presented their work to the campus community.

Shown here is Michael Scott ('22). He did research with Dr. Koeppen. His poster was "Expression and Purification of Complement Factor H for Protein Interaction Studies".

Other students that presented included: Johann Roque ('22) & Kyle Burley ('22) (Baker's group), Shelby Barnes ('22) & Michaela Gysbers ('22) (Haddadi's group), David George ('22) (Brown's group), Namrata Pokharel ('22) & Chelsea Gomez ('22) (Koeppen's group).

The Port of Oswego Authority held a ribbon cutting this spring for its state-of-the-art grain testing lab. The lab is directed by Dr. Cleane Medeiros. Many of our chemistry majors intern at the lab. Shown left to right: Dr. Cleane Medeiros, director of the Agricultural Testing and Analysis, Kristin Gublo (Faculty Sponsor), Jon' Renee Jones ('22), Flemmie Tyson Jones ('22); Pat McMahon (POA supervisor), Lindsay Fluman ('22) and Sean Erhardt ('22).



Honors Convocation was back in-person this spring. 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.

From left to right: Taylor Coiner (Dean's Writing Award), Ceth Deloff (Augustine Silveira Jr. Research Award), Kevin Farrell (Willy Schuh Outstanding Senior Award), Kyle Burley (Walter Freund Memorial Scholarship), Dr. Damkaci, Muhammadzohir Hidoyatov (Pearle Monroe Scholarship), Muhammad Musozoda (ACS Analytical Award), and Page Hazen (Anthony VanGeet Scholarship).

Summer 2022 Research Program:

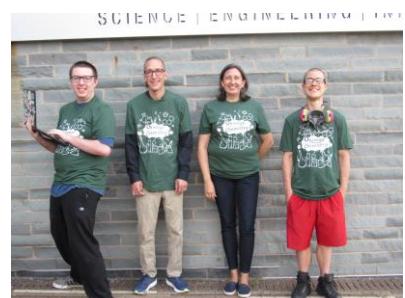
The department was happy to welcome 16 Chemistry students to campus this summer to offer them a research experience with our faculty. We would like to thank the following programs for supporting our students, Dr. Peter Bocko '75 and Andrea Guglielmo Bocko '73 Research Awards, The Bocko Forever Award 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 Damkaci Group



The Bendinskas Group



The Koeppé Group



The Haddadi Group



The Niri Group



The Ounkham 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: Kyle Burley ('22), Kevin Farrell ('22), Anthony Treigle ('22)
Front row: Nana Dwomoh Osei ('22), Skylyn McNamara ('22),
Katherine Brand ('22)

Thank you to our 2021-2022 Donors:

Alexandra Corrao	John Pavel III
Joshua Costo	Steven Slovak
Fehmi & Ebru Damkaci	Jay Tunkel
Joseph Garsetti	Flemmie Tyson-Jones
Ed & Kristin Gublo	Mary Warchal-Windham
Robert Lynch	
Tiffany Kline	Lawrence & Carolyn Wilson
John Nosal	

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

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or

ONLINE FORM

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Oswego, NY 13126

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

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