



# SUNY Oswego Dept. of Chemistry

## 2014-2015

### Letter from Chair:

*The summer months of 2013 were hot and humid in Oswego as we made the move from Snygg to the new Shineman Science Center. Today the site of Snygg Hall is a paved commuter parking lot with the only reminder of Snygg being a small brick wall with the original 1968 dedication plaque in approximately its original location. While my entire career was spent in Snygg, I certainly do not miss the hot & sticky summer days that I spent in our research labs and offices. The one thing that comes to mind when asked how we like our new facility is that the new building's temperature is pretty much the same – year round. What a pleasure to work in the summer in a comfortable environment without the sweat pouring off our bodies! Of course if you were running an NMR in Snygg, that room was always temperature controlled!*

*The 2014-15 academic year found us with Dr. Casey Raymond on a well-deserved yearlong sabbatical after leading us through the planning, construction, and finally the move to our new facility. Dr. Travis Harris joined us to fill the inorganic void with Dr. Raymond's sabbatical teaching General & Inorganic Chemistry and a new course – Computational Chemistry. We thank Dr. Harris for being part of our chemistry faculty for this last academic year. We had three successful promotions in the department with Kristin Gublo promoted to Instructional Support Specialist SL-4, Dr. Martha Bruch to Professor, and Dr. Jeffrey Schneider to Associate Professor. We all know that these are dedicated and hardworking individuals well deserving of promotion. Please drop them a line of congratulations.*

*The department made several curriculum program changes with the most noted change being that the physics elective in the BS Chemistry major is no longer required! Numerous other changes were made to improve the quality of our programs. And right on schedule the ACS required their 5 year report that we were able to complete in May ahead of schedule thanks to the fine work of our department secretary Christine Finnegan. Our summer research program is extremely active this summer with faculty and students receiving numerous grants to support their research. While the grants help to offset some of our student's summer living expenses, it is never enough. Therefore with the work of Dr. Fehmi Damkaci we have established a new summer research support fund that you can contribute to help with our student's summer expenses. You will be hearing more about this new opportunity in the near future.*

*This will be my final Chairman's Report as I complete my 2<sup>nd</sup> three year term as department chairman. We are currently in transition this summer as Dr. Fehmi Damkaci will be serving as the new chemistry department chairman effective September 1. There is a lot to learn of the happenings 'behind the scene' that takes place in the department office*

*and I am sure Dr. Damkaci will uphold the high standards of our department. The department will undergo staffing changes for this fall and the future as both myself and Dr. Joseph Lefevre are retiring after 41 and 30 years respectively of service to SUNY Oswego. Tenure track searches for both of our positions will take place this fall. The department gave each of us an inspiring retirement celebration and we thank all of our friends and colleagues for their collegiality for the combined 71 years of service to SUNY Oswego.*



*Future, Current, and Past Department Chairs at Larry's Retirement Party in May:  
F. Damkaci, K. Hyde, L. Fuller, and J. Schneider*

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# Photos from Larry Fuller's and Joe LeFevre's Retirement Parties May 2015



Joe and Linda LeFevre relaxing on the Shineman Center observation deck the afternoon of Joe's party.



Party centerpiece: Chemist Balloon Art by Mickey's Balloons in Liverpool.



The department celebrating Joe's **30 years of teaching** (1985-2015) to SUNY Oswego. Congratulations Joe! We wish you the best!



Larry and Cindy Fuller in the Marano Campus Center the afternoon of Larry's party.



The department celebrating Larry's **41 years of teaching** (1974-2015) to SUNY Oswego. Congratulations Larry!! We wish you the best!!

## Faculty and Staff

**Kestutis Bendinskas**, Associate Professor, Biochemistry

[Kestutis.bendinskas@oswego.edu](mailto:Kestutis.bendinskas@oswego.edu)

Post-doctoral fellow, John Hopkins University, 1996-1997

Ph.D., Bowling Green State University, 1996

B.A., Medeleev University of Chemical Technology, 1991



**Research Interests:** Proteins and metabolites involved in cardiovascular problems in children and adults exposed to heavy metals such as lead and mercury and the expression of such proteins and their metal-binding properties. Other research involves the detection methods for biomolecules in novel matrixes and the development of biochemistry and proteomic teaching laboratory experiments.

**Update:** Kestutis Bendinskas and his research group have published three articles in 2014, in *Environmental Research*, *Journal of Undergraduate Research*, and *Journal of Chemical Education*. Dr. Bendinskas wrote and received a \$146,200 NIEHS grant to study metabolomics in a cohort of Syracuse children environmentally exposed to low doses of lead, mercury, and cadmium. He is a co-PI on other three current NSF and NIH grants. He served as a visiting faculty at the Metabolomics Core at University of Michigan in the Spring of 2015 and presented three invited talks this year, two at University of Michigan in June of 2014 and March 2015, and one at University of Calcutta, Kolkata, India, in January of 2015. Dr. Bendinskas was honored by the Service Award at the North East regional Sigma Xi 2015 conference (<http://www.wcsu.edu/sigma-xi/>) as the founder of this regional research conference.

Dr. Bendinskas spends 1/4 of his productive time serving the scientific community as the Editor of *American Journal of Undergraduate Research (AJUR)*. *AJUR* is a national, independent, peer reviewed, open-source, quarterly, multidisciplinary student research journal. The editorial board of *AJUR* consists of about forty subject editors in a wide variety of fields. *AJUR* was established in 2002. It is devoted to making its authors' publications distinctive. It achieves this not only by the excellence of the peer-reviewed content, but also by being student- and public-friendly, and searchable by professionals. The journal is indexed by EBSCO. Printed copies are available in the special collections section of Penfield Library. Additional up-to-date information about *AJUR* can be found on at <http://www.ajuronline.org/>

Dr. Bendinskas group currently includes four MS students, Ashlee Mein (working on metalloproteomics of serum and liver cells), Jessica Blodgett (cortisol in hair), Katherine Piazza (metal-binding protein studies), and a co-advisee Justin Vignola (sugar cane proteomics, advised by Dr. Contento).

Dr. Bendinskas is particularly proud of achievements of his undergraduates: Ethan Walker is going to have a summer internship at University of Calcutta this summer; Htet Oo San, Ashley Hobson-Canning, Justin Sbarra, and Rachel Johnson are all going to professional or graduate schools this fall; Hannah Valentino returned from an internship Zhejiang Gongshang University, where she worked on co-authoring a book; Hannah also won the second highest award for her poster presentation in the most competitive category of Life Sciences at the North East regional Sigma Xi 2015 conference; and Kelly Wallace, his previous undergraduate research student, has just successfully defended her Ph.D. thesis in Neuroscience at SUNY-Upstate Medical University.

**Martha Bruch**, Professor, Physical Chemistry

[Martha.bruch@oswego.edu](mailto:Martha.bruch@oswego.edu)

Ph.D., University of Delaware, 1984

B.S., University of Delaware, 1978



**Research Interests:** Nuclear magnetic resonance (NMR) spectroscopy, high performance liquid chromatography (HPLC) and polycyclic aromatic hydrocarbons (PAH).

**Bruch cont.****Update:**

Martha Bruch has developed two new applied math courses, one for general chemistry and the other for physical chemistry. These courses enable students to develop the specific math skills needed in chemistry by solving the same math problems that students will encounter in their chemistry courses. Students can focus exclusively on the math without worrying about the underlying chemical concepts involved.

Dr. Bruch has also been involved with activities with children, participating in Zoo-Boo in October, where kids can perform hands-on science activities at Rosamond Gifford zoo as part of National Chemistry week. She also supervised hands-on chemistry activities for middle school students attending a science career day at Oswego in May. Finally, she will be one of 7 people involved in a course for kids at the Sheldon Institute entitled "Window into Sciences" where she will supervise two days of hands-on activities in August.

Dr. Bruch has continued her work using  $^{13}\text{C}$  and  $^{29}\text{Si}$  solid state NMR analyzing surfaces of chemically modified silica with the new 500 MHz NMR in Shineman. She will be taking sabbatical leave in spring, 2016 to learn how to synthesize these surfaces and pack the modified silica into columns for use in HPLC. This is a continuation of work which resulted in a publication in Langmuir in 2013. Dr. Bruch was promoted to full professor effective in August, 2015.

**Fehmi Damkaci**, Associate Professor, Organic Chemistry

[fehmi.demkaci@oswego.edu](mailto: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



**Awards:** 2015 Provost's Award for Mentoring in Scholarly and Creative Activities and 2015 International Educator Year Award by International Center of Syracuse

**Research Interests:** Synthesis of designer polymers to capture heavy metals from water, total synthesis of heterocyclic natural products with medicinal and/or structural importance, development of new synthetic organic reactions, and the development of new experiments for undergraduate organic laboratory curriculum using microwave-assisted reactions.

**Updates:** Fehmi Damkaci's research groups were successful in securing funding for post-doctoral researcher from Turkey: Dr. Nazli Boke Sarikahya has been working with undergraduate students on two different projects: total synthesis of Trigonoinone B and new methodology development for the synthesis of hydrozone derivatives followed by cyclizations. In addition, Dr. Hasan Sarikahya has been working on synthesis of polymers and analyzing their heavy metal capture capabilities from water. Dr. Damkaci had ten undergraduate and graduate research students working under his guidance. His recent graduates Erik Vik will be a PhD student at University of Southern Carolina and Joshua Malone will be a PhD student at Louisiana State University. Undergraduate students Megan Loper and Melissa McGowan are both accepted to pharmacy schools. In spring 2013, Damkaci and his research group (Adam Szymaniak) published one paper: "Multicomponent Heterocyclic Chemistry for Undergraduate Organic Laboratory: Biginelli Reaction with Multiple Unknowns" J. Chem. Edu. 2014, 91, 943-945. Dr. Damkaci continues to manage institutional NSF-STEP grant (around \$860,000), and its 3rd year showed great retention rates by using peer-mentorship program within freshman labs. Juniors and Seniors are placed in freshman labs as peer mentors (in addition to TA) to help them with their work as well as questions regarding major, courses etc. Kristin Gublo coordinates the peer-mentorship program for all science departments. In addition, Dr. Damkaci had \$22,500 external grant for high school summer research program. It served 16 students and two teachers by four faculty in STEM fields. Dr. Damkaci also served as co-PI in drafting the proposal for DoE FIPSE grant, which is a collaborative grant for increasing transfer student success. The project was granted for \$2.8 million to implement collaboration among five organizations for transfer student success. During the summers, Damkaci kept busy with the GENIUS Olympiad, an international high school project competition about environmental issues ([www.geniusolympiad.com](http://www.geniusolympiad.com)). This year it hosted 700 students and teachers from 59 countries in five disciplines with environmental focus. The disciplines include science, art, creative writing, design and music. This summer was the 34th annual GENIUS Olympiad and received more than 1200 projects from 68 countries. Program accepted only 34% of the submitted projects.

**Nin N. Dingra**, Assistant Professor, Biochemistry  
[nin.dingra@oswego.edu](mailto:nin.dingra@oswego.edu)  
Ph.D., University of South Carolina, 2010  
B.S., Armstrong Atlantic State University, 2005



**Research Interests:** Synthesis and characterization of a new class of carbon monoxide releasing molecules. Determining the effect of CO in the redox states of the cell. Determining the function of pseudo-phosphatase in yeast and how they work at the molecular level.

**Update:**

During the past two years in SUNY Oswego, Dingra has mentored two graduate and several undergraduate students. She and her students have presented their research work in SUNY Oswego as well as regional and national meetings. In 2015, Dingra has published one article in Journal of Chemical Education titled "Using a Microscale Approach To Rapidly Separate and Characterize Three Photosynthetic Pigment Species from Fern". Another article titled "Amine Carboxyboranes: A New Class of Carbon Monoxide Releasing Molecules" is under review in Journal of American Chemical Society. Dingra also obtained a provisional patent for her project on Synthesis and characterization of a new class of carbon monoxide releasing molecules. She hopes to continue to get support from the Chemistry Department here in SUNY Oswego.

**Lawrence Fuller**, Chair of Chemistry Department  
[Lawrence.fuller@oswego.edu](mailto:Lawrence.fuller@oswego.edu)  
M.S., SUNY Oswego  
B.S., SUNY Oswego



**Research Interests:** Forensic Science and analysis of expired over-the-counter analgesics

**Updates:**

We have an extensive summer 2015 research program this summer with Monday lunchtime pizza gatherings that are able to finish off **THREE** sheet pizzas! What an exciting time to be in Oswego over the summer.

My research students this year conducted projects to see how much a drug decreased in quantity as a function of time and temperature. The bottom line: is it OK to take an 'expired' drug? We looked at acetaminophen (Tylenol), ibuprofen, and a series of different vitamin supplements. All of my students gained much knowledge in analytical techniques, specifically in HPLC. They made for some interesting results that were presented at Quest.

**Webe Kadima**, Associate Professor Analytical & Biochemistry Chemistry

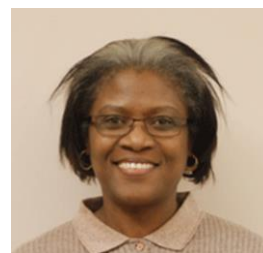
[webe.kadima@oswego.edu](mailto:webe.kadima@oswego.edu)

Post-doctoral fellow, University of California, Riverside, 1987–1989

Ph.D., University of Alberta, 1986

M.Sc., University of Montreal, 1982

B.S., University of Montreal, 1980



**Research Interests:** The investigation of plants used to treat diabetes in the Democratic Republic of Congo (DRC) involving clinical studies in the DRC and biochemical studies at SUNY Oswego.

**Updates:**

**Joseph LeFevre**, Professor, Organic Chemistry

[joseph.lefevre@oswego.edu](mailto:joseph.lefevre@oswego.edu)

Ph.D., Virginia Tech, 1984

B.A., DePauw University, 1975



**Research Interests:** Natural products in chemistry and Betulin enriched birch bark.

**Updates:**

As I wrap up 30 years of teaching at SUNY Oswego and head into a new season of life, I am thankful for you, the students, who made my time here so enjoyable. Without you, of course, we would have no work to do here. Thanks to all of you for your commitment to chemistry and our department here. It has been a real pleasure to work with many of you. I wish you all the best in your careers and lives. Live it to the fullest! The years go by so quickly...

All the best,  
Joe LeFevre



Chemistry MS May 2015 Degree Candidates- From left to right: N. Dingra, Katie Tylock, Leann Valentino, Ashlee Mein, Jessica Blodgett, F. Damkaci, K. Bendinskas, Michael Molnar

## Vadoud Niri, Assistant Professor, Analytical Chemistry

[vadoud.niri@oswego.edu](mailto: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:** During the last year, Dr. Niri has been active in research by supervising 3 graduate students and 12 undergraduate students in their research projects in the area of analytical chemistry. He received 10 internal grants to support his research activities and has applied for an external grant. His research group worked on different projects including chemical analysis of electronic cigarettes, analysis of pharmaceuticals in water and biological samples, and analysis of local, store, and organic fruits and vegetables for their metal and pesticide contents. He has been collaborating with Dr. Kestas Bendinskas, Dr. Fehmi Damkaci, and Dr. Shokouh Haddadi. He has one paper published and preparing two more papers for publication. Dr. Niri and his students have presented the results of their works in regional and national meetings.

### Presentations:

1. T. Jones, G. Peterson, and V. Niri, Monitoring Volatile Organic Compounds Removal by Indoor Plants, *SUNY Undergraduate Research Conference*, The College at Brockport, Brockport, NY, April 10, 2015. (*Oral presentation*)
2. H. Posada, J. Calvert, and V. Niri, Analyzing Volatile Organic Compounds (VOCs) in Drinking Water in Oswego City, *SUNY Undergraduate Research Conference*, The College at Brockport, Brockport, NY, April 10, 2015. (*Oral presentation*)
3. V. Niri, The Air We Breathe, The Water We Drink!, general talk in "Science Today" program, April 21, 2015. (*Oral presentation*)
4. V. Niri, G. Peterson, A. Donahoe, Chemical Analysis of Electronic Cigarettes, *ACS Northeast Regional Meeting 2015*, Ithaca, NY, June 10-13, 2015. (*Oral presentation*)
5. G. Peterson, T. Jones, D. Rispoli, V. Niri, Investigation of Phytoremediation of Volatile Organic Compounds in Indoor Environments, *ACS Northeast Regional Meeting 2015*, Ithaca, NY, June 10-13, 2015. (*Oral presentation*)
6. V. Niri, G. Peterson, A. Donahoe, Chemical Analysis of Electronic Cigarettes Using Solid Phase Microextraction and Needle Trap Device Coupled to Gas Chromatography Mass Spectrometry, *250th American Chemical Society National Meeting*, Boston, MA, August 16-20, 2015. (*Accepted as oral presentation*)

## Casey Raymond, Assistant Professor, Inorganic Chemistry

[casey.raymond@oswego.edu](mailto: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.

### **Updates:**

Well, I made it through the first year in the Shineman Center and then began my year-long sabbatical. A significant portion of which was spent in Oswego, where I was finally able to unpack my research lab and begin learning how to operate several of the new instruments in the building. I supervised one Honors Thesis student who was investigating the sugars present in par-cooked sweet potatoes by LC-ECD. Her results are interesting and she has provided a good foundation for other students to continue the study. Jeff Schneider and I completed an invited, peer-reviewed chapter for an ACS Symposium Series volume on ethanol in education. In March, Melissa and I left for a three month stay in Belgium, where I met with faculty at the Katholieke Universiteit Leuven (KU Leuven) in Ghent. The meeting with the staff at KU involved discussions of new laboratory experiments and we began discussions of a collaboration on the chemical changes that occur during the boiling of hops in wort. I was able to perfect my use of the transportation system in Belgium and visited several fermentation related sights. We also visited Haarlem & Alkmaar in the Netherlands and Cologne & the Mosel valley in Germany to scout possible locations for future study abroad class trips. It was certainly interesting living for 3 months without a car and only using public transportation, trains, and our tandem bicycle to get around. Lastly, I accepted the position of Associate Director of the Honors Program beginning in Fall 2015. This will have a small impact on the courses I teach in the sciences, such as not teaching general chemistry, but I'm looking forward to doing something new.

**Jeffery Schneider**, Associate Professor, Analytical and Environmental Chemistry

[jeffery.schneider@oswego.edu](mailto: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, kinetic and equilibrium studies of novel water-soluble porphyrins and the student of carbohydrate composition of beer.

**Updates:**

**Kristin Gublo**, Instructional Support Specialist

[kristin.gublo@oswego.edu](mailto:kristin.gublo@oswego.edu)

M.S., SUNY Oswego, 1999

B.S., SUNY Oswego, 1996



**Updates:**

Kristin is responsible for providing all reagents and equipment for our laboratory courses and the training of the 11 Teaching Assistants. She continues to teach our one credit Chemical Safety Course and provides lab safety training workshops each semester to the chemistry faculty, graduate students and undergraduate research students. She presented at the ACS NERM conference on July 10-11<sup>th</sup> in Ithaca NY- Title: Implementation of a One-Credit Safety Course, receiving a \$400 IDAP grant from UUP. Kristin serves as the department's Advisement Coordinator, Coordinator of the General Chemistry Peer Mentor Program, and recently became a First Year Advisor. She works closely with Career Services to provide our majors with career exploration field trips and alumni visits, this year she planned a trip to Anheuser Busch in Baldwinsville, NY. She loves her new work space in Shineman Center, her office; lab and stockroom are one big suite on the ground level. She can easily supervise all of her work study students. Her family is her "spare time", Ryan is going into 5<sup>th</sup> grade and Emily will be starting 2<sup>nd</sup> grade this fall. They both enjoyed attending Sheldon Institute's 2 week day program for the first time this summer. Her husband Ed (Oswego alumn '95/97) has been with Thermopatch Inc. in Syracuse for 10 years as their Operations Manager.

**Fred Scoles**, Instructional Support Technician

[fred.scoles@oswego.edu](mailto:fred.scoles@oswego.edu)

*B.S., Ohio State University*

*M.S., Ohio State University*

**Updates:**



# Graduation Photos



Jeff Schneider and Abigail Hicks Chemistry BS ('15)



Larry Fuller and Stuart Bates ('14)



Stuart Bates ('14), Josh Malone ('14), and Ashley Canning ('14)



Melissa McGowan ('15) and Fehmi Damkaci

# Quest Photos



Jack Berkley ('15), Morgan Gualtieri ('15) and L. Fuller



J. Schneider and Abbi Hicks ('15)



N. Dingra and Thomas Bodnar ('15)



Megan Loper ('15), F. Damkaci, and Melissa McGowan ('15)



Chau Pham ('16), J. LeFevre, and Cody Robenski ('15)



Htet San ('15), K. Bendinskas, and Hannah Valentino ('16)



Left to Right: Geoffery Peterson ('15), Diana Rispoli ('17), Hila Posada ('17), James Calvert (MS '16), V. Niri, Allan Donahoe ('15), Chris McMullen ('15), Dan Walter (MS '16)

## Anheuser Busch Field Trip

Fourteen SUNY Oswego chemistry majors spent the afternoon of April 24, 2015 learning about career opportunities at the Anheuser Busch facility in Baldwinsville, NY. Their tour guide was Brew master Matt Morgenthaler who earned his chemistry degree from ESF and has been with the company for 25 years. He started the afternoon with a presentation to the students on the history of beer, different ingredients they use, various brewery terminology, and the science behind the entire process. The students enjoyed hearing about the different techniques that they are learning in their lab courses and how they apply in a large scale manufacturing setting. The trip was funded by Career Services. Chaperones included Kestas Bendinskas and Kristin Gublo from Chemistry and Corey Sveinsson (GA Career Services)

### Fun facts we learned from Matt:

-The plant uses 1 million pounds of grain per day (equivalent to 20 tractor trailer loads)

-The plant produces 20-25,000 barrels of finished beer per day

-This site produces 95 different brands of beverages

-Beer is 92% water by weight and this site uses Lake Ontario water. Because of the lake's large scale, it gives them a more consistent product year round compared to a smaller lake like Skaneateles

-This facility is the largest producer of hard cider in the world, products from this particular plant are shipped all over the world

- Anheuser Bush purchases 9% of all rice produced in the US, one silo of rice is used every two days

-There are 4 yeast strains at the brewery

-Budweiser is a mix of domestic and imported hops, hops provide the spice to beer

-They sell their spent grain and dust to dairy and chicken farmers for use as feed

-Beech wood chips are used in a tank to keep yeast cells alive-provides a surface area for them

-Acetaldehyde is a GC marker indicating yeast cells have died, too much is a bad thing

-The site captures most of their CO<sub>2</sub> and reuses it in house.

-They have a panel of tasters that taste and score the beer at 3:00pm everyday



Seniors Abbi Hicks and Bridget Smith taking in the pleasant aroma of the hops



## News from Alumni

**Paul Hill ('66)** retired from teaching NYS Regents chemistry and Advanced Placement Chemistry at Newburgh Free Academy, Newburgh, NY in 2000

**Seth Putrelo ('00)** started a new position as a Laboratory Technician at Galson Laboratories in East Syracuse, NY.

**Jim Parise ('00)** left Duke in 2011 to take a position at Notre Dame as a Teaching Professor in Organic Chemistry.

**Amber Wayne ('10)** received her Doctor of Pharmacy degree in May from Massachusetts College of Pharmacy.

**Tyler Maxon ('11)** received his Doctorate of Optometry in May from the SUNY State College of Optometry.



**Shirley Peng ('13)** graduated with her master's degree in materials science and engineering as has accepted a full-time position as an Associate Scientist at August Research Systems in Pittsburgh, PA.

**Rachel Johnston ('13)** will be attending the Medical University of South Carolina in Charleston, SC for her PhD in biomedical science.

**Alexandra Szypryt ('13)** finished up her Graduate work in Forensic Science at George Washington University

**Vyncent Nguyen ('14)** will be attending SUNY Buffalo to pursue a master's degree in Chemical Engineering.



Would you like to join our Oswego Chemistry Alumni Group on Linked In? Simply send a message to Kristin Gublo through her Linked in account. What a fabulous way to reconnect with old classmates and help our recent grads network in the field. Currently we have ~70 members.

## Thank you!

We would like to thank our generous alumni that made donations to our department last year. We used this money to support extra programs and to purchase equipment for our laboratories. Thank you very much.



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](http://www.oswego.edu/givenow)). To allocate the donation to our department, simply specify "Other Designation". You have 3 options available: Chemistry Department, a Chemistry Scholarship, or the Chemistry Summer Research Fund. If you would like to make a donation via check, 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.



Back row: Nathan Stemmler ('16), Naa Asheley ('16), Cydney Ward ('16)  
Front Row: Rachel Scalzo ('16), Gabriel Odughesi ('17), Marianna Butera ('17)

## Chemistry Club News

The club had an exciting year hosting their annual fall liquid nitrogen ice cream social and their two end of the semester celebrations. They sponsored numerous workshops throughout the year on graduate school, internships, and resume building. The club also supported a few undergraduates this year covering their travel expenses/registration fees for presenting at scientific conferences.

Other club events included a bowling night with faculty and students, selling chemistry valentines with the Pre-optometry club, assisting with elementary school field trips to Shineman Center, and serving as student volunteers for the ACS CNY Chemistry week at the Syracuse zoo.

### 2014-2105 Chemistry Club Officers

President: Tina Buckingham  
Vice President: Megan Loper  
Secretary: Melissa McGowan  
Treasurer: Tom Bodnar

Advisor: Kristin Gublo  
(this year only while Casey Raymond was on sabbatical)



Officers: Front: Tom Bodnar ('15), Back: Tina Buckingham ('15), Megan Loper ('15), and Mellisa McGowan ('15)



Mellisa McGowan ('15), F. Damkaci, J. Schneider, and Megan Loper ('15) relaxing at the club's end of the fall semester party

## Pre-Optometry Club News

The club sponsored a MCAT, OAT, PCAT, and DAT Information Session in the fall bringing in a guest speaker from Kaplan Test Prep. During the spring semester the club collected used glasses from campus staff and students for OneSight, a charitable vision care program dedicated to helping the world see. All glasses donated are recycled by OneSight volunteers and hand-delivered on one of their Optical Clinics held around the world.

### Pre-Opt Club Officers 2014-2015

President: Brittany Bailey  
Vice President: Chau Pham  
Treasurer: Matthew Waskiewicz  
Advisor: Kristin Gublo



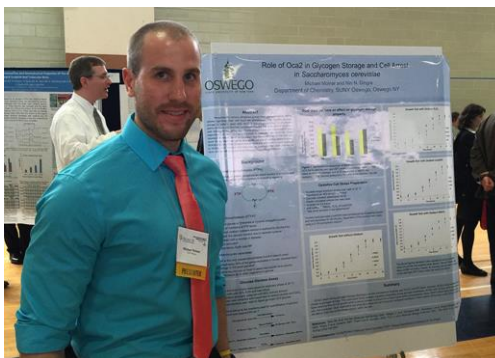
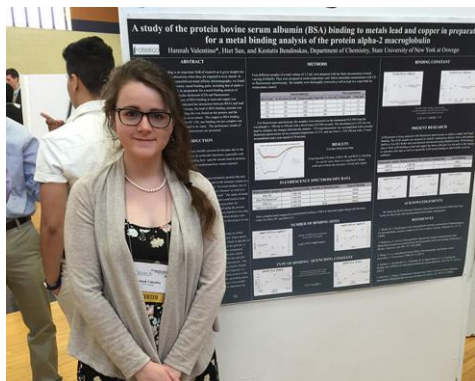
Front: Diana Mitchell ('17), Jenna Kasza ('17)  
Back: Brittany Bailey ('15) and Matt Waskiewicz ('17)



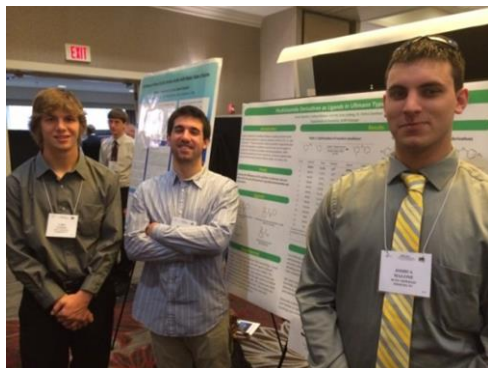
Diana Mitchell ('17) and Brittany Bailey ('15) with their donations for OneSight

# Conferences

Oswego students presented at the **Sigma Xi Northeastern Regional Research Conference 2015** held April 18 at Western Connecticut State University. Hannah Valentino, a junior biochemistry major, won the second highest award for her poster presentation in the most competitive category, Life Sciences. Michael Molnar, a graduate student won third place among all graduate student posters. Also Kestutis G. Bendinskas, received a service award “for his key role in founding the Northeastern Regional Meeting since 2006 . . . We congratulate his commitment to Sigma Xi’s core mission of interdisciplinary scientific mentorship.”



Michael will be attending University of Mississippi’s PhD Chemistry program in the Fall of 2015. He will be working under Dr. Randy Wadkins (\$22,000 stipend). Hannah will be graduating May 2016.



Fehmi Damkaci’s research students, *pictured from left, Cory Ludwig, Erik Vik and Joshua Malone* presented their summer research “Picolinamide Derivatives as Ligand for Ullmann type Aryl Ether Reactions” at the **American Chemical Society** conference Oct. 31 in Pittsburgh.

Erik will be attending South Carolina University (\$24,000 stipend) and Josh will be attending Louisiana State University (\$24,000 stipend) this fall to pursue their PhDs. Cory will graduate May 2016.

Senior biochemistry Major Ashley Canning presented a poster at the **Sigma Xi 2104 International Research Conference** in Glendale Arizona. Her project under K. Bendinskas was “MALDI-TOF LP, ISD, PMF, and PSD in the Determination of Four Distinct Proteins: An Advanced Biochemistry Laboratory”. Ashley is currently pursuing her PhD in Biochemistry at Upstate Medical in Syracuse.



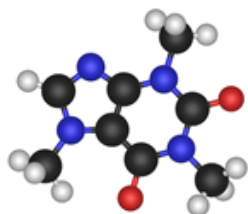
Ashley Canning ('14) met Dr. Donna J. Nelson, the scientific advisor from the famous TV show "Breaking Bad" at the Sigma Xi conference.

Juniors Tim Jones and Hilda Posada (Vadoud Niri’s group) presented at the **SUNY Undergraduate Research Conference** at SUNY Brockport in April 2015. They presented their findings on the analysis of volatile organic compounds.

Senior Biochemistry major Geoffery Peterson (also from Vadoud Niri’s group) presented at the **ACS Northeastern Regional Meeting** in Ithaca, NY in June 2015. The title of his talk was “Investigation of phytoremediation of volatile organic compounds in indoor environments”.

***We congratulate all of these students for their amazing achievement. They all did a fantastic job representing our department/school.***

# Chemistry Department Scholarships & Awards:



Spring 2015

Willy G. Schuh Outstanding Senior Award -Abbi Hicks

Pearle Monroe Scholarship –Ethan Walker

Analytical Award – Hannah Valentino

Anthony VanGeet Scholarship – Kate Bailie

ACS Senior Organic Award- Justin Sbarra

Hypercube Award- Geoffrey Peterson

POLYED Award: Rachel Scalzo

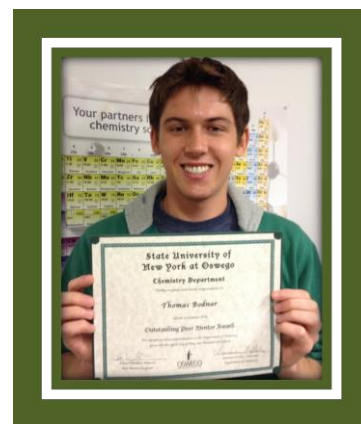
Outstanding Peer Mentor Award- Tom Bodnar

Outstanding TA Award: Mike Molnar

Sigma Xi Quest Award Best Oral-Geoffrey Peterson and Allan Donohue

Sigma Xi Quest Award Best Poster-Justin Sbarra

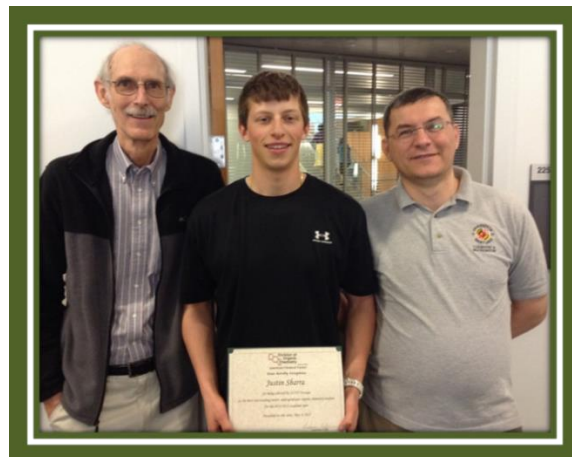
Class of 2015 department honors: Tom Bodnar, Morgan Gualtieri, Abbi Hicks, Bridget Smith, Geoffrey Peterson, Httet Oo San, Justin Sbarra



Recipient of the 2015 Outstanding Peer Mentor Award and Graduating with Honors, Thomas Bodnar ('15) will be attending Ohio State's Ph.D program this fall (free tuition and stipend). Tom was very involved on campus; he served as our Chemistry Club Treasurer, a peer mentor to the general chemistry and analytical students, an OLS tutor, and worked in the chemistry stockroom for four years. He did research for Dr. Ningra, the title of his Honor's thesis was "Optimizing Purification and Extraction of Oca2 Transformed In E. coli". Tom was involved with a number of research projects during his summer breaks landing very competitive internships both in Brazil (part of our Global Laboratories program) and at WR Grace in Maryland. We always tell our students make the most of out your Oswego degree. Tom did just that! We wish him continued success in Ohio.



S. Haddadi and Hannah Valentino('16)



J. LeFevre, Justin Sbarra ('15), and F. Damkaci

## 2014-2015 Undergraduate Degree Candidates

Degree	Last	First	Name of Company/Title	Name of Graduate School/ Program
BA Chem	Aggrey	Anthony		Lake Erie College of Osteopathic Medicine in Erie, PA.
BA Chem	Canby	Jessica	Advanced Manufacturing Technology Inc. in Jamestown NY/ Technical Associate	
BA Chem	Gleason	John		
BA Chem	Gogis	Matthew		
BA Chem	Grynyk	Bogdan		New England College of Optometry
BA Chem	Heidke	Joshua		
BA Chem	Horna	Austin		
BA Chem	Wolinski	Jason		
BS Biochem	Bailey	Brittany	Wyoming Analytical Laboratories Inc.	
BS Biochem	Berkley	Jack		
BS Biochem	Bodnar	Thomas		Ohio State University- Biochemistry PhD Program
BS Biochem	Canning	Ashley		Upstate Medical, Biochemistry
BS Biochem	Donahoe	Allan		
BS Biochem	Gualtieri	Morgan		Upstate Medical University - Physician Assistant program
BS Biochem	Johnston	Rachel		Medical University of South Carolina - Charleston, SC ,PhD in biomedical sciences
BS Biochem	Nunez	William		
BS Biochem	Peterson	Geoffrey		SUNY Oswego Chemistry, MS
BS Biochem	Pschierer	Corey		
BS Biochem	San	Htet Oo		American University of Antigua Medical School
BS Biochem	Willsea	Nicholas		
BS Chem	Bates	Stuart		Syracuse University, Forensic Science
BS Chem	Cruz	Joshua		
BS Chem	Hicks	Abbigael		SUNY ESF, MS program
BS Chem	Loper	Megan		Touro College of Pharmacy
BS Chem	Malone	Joshua		PhD program at Louisiana State University
BS Chem	McGowan	Melissa		University of Buffalo, Buffalo NY/ Doctor of Pharmacy
BS Chem	Robenski	Cody		
BS Chem	Paura	Sheldon	Novelis, Process Technician	
BS Chem	Sbarra	Justin	Lalor Creekside Dental, Binghamton Area	
BS Chem	Smith	Bridget		
BS Chem	Vik	Erik		South Carolina University
BS Geochem	Krolikowski	Adam		

## 2014- 2015 Chemistry MS Degree Graduates

Jessica Blodgett- Biotech Production Specialist at Regeneron Pharmaceuticals  
 Ryan Cotroneo - Scientist III at U.N.X. Inc. in Greenville, NC.

Michael Molnar -University of Mississippi's PhD Chemistry program

Chad Smith-

Kathryn Tylock-

Leann Valentino-



## Where are SUNY Oswego Chemistry Graduates working?



## Where have SUNY Oswego Chemistry Graduates attended Graduate School?



## Alumni Publications

### Dan Dempsey ('07)

Biochemistry. 2014 Dec 16;53(49):7777-93. doi: 10.1021/bi5006078. Epub 2014 Dec 1.

Mechanistic and structural analysis of *Drosophila melanogaster* arylalkylamine N-acetyltransferases.

**Dempsey DR**<sup>1</sup>, Jeffries KA, Bond JD, Carpenter AM, Rodriguez-Ospina S, Breydo L, Caswell KK, Merkle DJ.

**Jason Pagano ('97)** published recently in the ACS journal Chemical Reviews. The article is entitled "From chemical gardens to chemobrionics." There is no citation for the Review Article at this time, however, a DOI is available. The DOI is:10.1021/acs.chemrev.5b00014 Simply copy and paste the DOI in your browser for access. The article is "open access" so it is available to anyone and anywhere regardless of an ACS campus subscription.

### Todd Pagano ('96)

Smith, S.B.; Ross, A.D.; and **Pagano, T.** "Chemical and Biological Research with Deaf and Hard-of-Hearing Students: Ensuring a Safe and Successful Laboratory Environment". Journal of Chemical Health & Safety, (accepted, in press, 2015).

**Pagano, T.** and Ross, A.D., editors. Teaching Chemistry to Students with Disabilities, Edition 4.1. American Chemical Society's Committee on Chemists with Disabilities: Washington, DC. 2015.

**Pagano, T.**; Carcamo-Ortiz, N.; and Kenny, J.E. "Investigation of the Fluorescence Quenching of 1-Aminoanthracene by Dissolved Oxygen in Cyclohexane". Journal of Physical Chemistry A, 2014, 118(49): 11512-11520.

**Pagano, T.**; Bida, M.; and Kenny, J.E. "Trends in Levels of Allochthonous Dissolved Organic Carbon in Natural Water: A Review of Potential Mechanisms under a Changing Climate". Water. 2014, 6(10): 2862-2897.

## Alumni-

Please keep in touch and send us updates for next year's newsletter.

An online submission form can be found on our web site: [www.oswego.edu/chemistry](http://www.oswego.edu/chemistry)

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Summer 2015 Department of Chemistry Research Students, Faculty & Staff