

Old Dominion University ~ Department of Chemistry & Biochemistry

Hello Alumni, Students, Faculty, and Friends! It has been a busy semester with retirements on the horizon, new grant funding, faculty awards, undergraduate awards, graduate student awards and a slew of new doctoral and masters graduates. Included is a research spotlight on Dr. Wang's research group and highlights of both regional and national student presentations. In our Alumni News spotlight we are featuring NASA Engineer Gugu Rutherford, an alum of our undergraduate program; and Naval Shipyard Environmental Chemist Thomas Sprinkle, an alum of our graduate program. We are also pleased to announce the recent hire of Dr. David Courson as a full-time faculty member and Lecturer in the Department of Chemistry and Biochemistry. There is also a section in this issue of Periodic Trends describing the recent featuring of Dr. Courson in Nature. The design of the new 110,000 square foot Chemistry Building, which will overlook Elkhorn Drive and the Baseball Field, is almost complete, and we are anticipating breaking ground Christmas break 2018.

We look forward in hearing from you!

Sincerely,

John Cooper, Chair

Joshua Wallach Teaching with Technology Award

This semester, Dr. Josh Wallach received the prestigious Teaching with Technology Award. This is one of the most competitive awards at the university level and comes with a \$5,000 stipend. Since Josh joined the Department of Chemistry and Biochemistry he has incorporated a large variety of technology into the lecture and laboratory components of our undergraduate program. His innovations have **greatly enhanced the educational experience of ODU students, while at the same time greatly lowering student costs!** The following is a list of some of the technological innovations he has developed for the department:

- Online Lab-checker for undergraduate pre-labs
- Blackboard delivered online homework and checker for large lecture courses
- Online Placement Exam
- Online Remediation Modules
- Online pre-lab assignments
- Interactive Lectures using hybrid multimedia
- Course Capture and Online delivery
- Camera Use in Lecture demonstrations



Lesley Greene Diversity Champion Award

Old Dominion University recognizes the inherent value of equity and diversity in the classroom, workplace, and community and wants to celebrate individual Champions of Diversity.

The John R. Broderick Diversity Champion Award is designed to honor and celebrate individuals who encourage and advance the principles of equity and diversity, to promote the positive impact diversity has upon our university community. In January 2018 Sharon Bivens from the Office of Institutional Equity and Diversity presented this award to Lesley Greene, Associate Professor in Chemistry & Biochemistry. Greene commented that "It may in part be my military training, my sensitivity towards treating all people with dignity and respect, and my desire to live in a world that is inclusive and treats all people equally, that enables me to naturally and actively foster an environment at ODU and in our community that promotes equality and diversity."



Tammy Subotich Employee of the Month

Tammy Subotich, the stockroom laboratory manager, with the Department of Chemistry and Biochemistry, was Old Dominion University's Employee of the Month for November 2017. She has been with the University since 1989. Subotich was recognized for her hard work and dedication to her role. According to her supervisor Alicia Herr, "Tammy is smart and creative. She has played a vital role in the



planning of ODU's new chemistry building. She is a great networker, which has led to our department learning some best practices and tips from other professionals as we make progress with the chemistry building's development."

John Cooper, the Department Chair of Chemistry and Biochemistry, echoed Herr's sentiment by recognizing Subotich for her in-depth involvement as well as her ability to formulate and execute plans.

"Tammy excels in her role and ensures that all requirements are met," Cooper said. "Often times, she is ten steps ahead, proactively creating solutions to problems that we didn't know would exist. Tammy has been a stellar employee at ODU, even beyond her own department."

Tammy was very surprised when President John Broderick presented her with the award at our November department meeting (picture shown above).

Retirement of Dr. Tom Isenhour

Thomas L. Isenhour is an analytical chemist with a BS degree from the University of North Carolina and a PhD from Cornell. His expertise includes nuclear analytical chemistry, spectroscopy, and data interpretation. He is a teacher, researcher, administrator, and consultant to industry and government. He has taught more than 10,000 students in chemistry, environmental science, mathematics and the history of science.

In research, Isenhour has published 182 articles and 15 books. His books have been translated into Russian, Polish, and Czech. He has directed 28 PhD dissertations and 10 MS theses. His research has attracted grants ranging from \$20,000 to \$500,000 per year. He is an award winning actor and has authored four plays which have been produced.

Isenhour has served as Department Chair at the University of North Carolina and Duquesne University. He has been Dean of Arts & Sciences at Kansas State University and Dean of Sciences at Utah State and Old Dominion Universities. His most recent administrative assignment was a five-year term as Provost and Vice President for Academic Affairs at Old Dominion University.

Isenhour has served on many national boards, the chemistry committee for GRE, and as a counselor for the College Board. During the 80's he edited *The Journal of Chemical Information and Computer Science*. On leave he was an endowed Visiting Professor at Hebrew University in Jerusalem, a Program Director at the National Science Foundation, and the Provost/Dean for the establishment of the American University in Bulgaria. He has recently been a member of People-To-People Ambassador delegations to China, South Africa, Brazil, and India. On leave, following the completion of his term as Provost, he has written his latest book, *The Evolution of Modern Science*. Presently, an Arabic translation of this book is under consideration.

Isenhour's honors include membership in Phi Beta Kappa, an Alfred P. Sloan Research Fellowship, the American Chemical Society Award in Analytical Chemistry, and an Outstanding Performance Award at the National Science Foundation.

Isenhour is married and has one daughter, one son, and one grandson. His hobbies include flying (he is a certified flight instructor), classical music, jazz, literature, writing, and acting. He has done volunteer work for the American Cancer Society, the United Fund, the Civil Air Patrol, and National Public Radio.

Isenhour finds time for meditation, exercise, and learning every day. His philosophy is: "Through education, we can build a world where enlightenment replaces prejudice, ethics replaces greed, and compassion replaces violence."

We wish Dr. Isenhour the best in this next chapter of his life and hope he will spend his time doing activities he enjoys!



New Grant Funding

In addition to numerous ongoing funded research projects, the Department of Chemistry and Biochemistry received many grants in the last six months!

These funds are used to carry out research in the department at both the graduate and undergraduate levels. Congratulations to the following professors for their contributions:

Dr. Peter Bernath

- ◆ [NASA, APRA-Laboratory Astrophysics (Astrophysics Research and Analysis Program), 2018-2022; \$483,363]: This new NASA laboratory astrophysics grant is to study the infrared and near infrared spectra of molecules such as hot methane found in exoplanets. The laboratory absorption spectra of hot molecules in a furnace are recorded with a high-resolution Fourier transform spectrometer.

Dr. Alvin Holder

- ◆ NIH MARC U-STAR Grant. Maximizing Access for Research Careers—Undergraduate Student Training in Academic Research.

Dr. Steven Pascal

- ◆ Program for Undergraduate Research & Scholarship Award, 2018-2019, \$10,000.

Dr. Erin Purcell

- ◆ Summer Research Fellowship Program Award (SRFP). Her project is, *Clostridium difficile motility in response to reactive oxygen species*. SRFP grants provide a stipend of \$6,000 and also include up to \$1,000 in expenses. The purpose of the program is to nurture research and future scholarly effort primarily for junior tenure-track faculty members. Consideration is also given to more experienced investigators who are exploring new directions in research. It is expected that these awards will lead to external grants, journal publications, manuscript publication or display of artistic work. Faculty awardees will devote eight weeks to full-time research this summer.

Dr. Joshua Wallach

- ◆ Faculty Development Award from Old Dominion University, \$5,500. This will be used to support the development of problem solving tutorials and exercises for Foundations of Chemistry II, CHEM 123N.
- ◆ The University Teaching with Technology Award, \$5,000.

New Grant Funding, *continued*

Dr. Guijun Wang

- ◆ Science Advancement Grant, Boehringer Ingelheim Pharmaceuticals Inc, Guijun Wang, PI, \$35,000, Novel ligands for non-precious metal catalyzed asymmetric transformations.
- ◆ 4-VA at UVA Collaborative Research Grants Program PI: Joshua Choi (Chemical Engineering, UVA, \$30,000), Co-PI: Guijun Wang (Chemistry, ODU, \$5,000) Hybrid organic-inorganic materials for non-volatile optical memory devices.
- ◆ Organic Synthesis Seminar Grant, \$3,000, Org. Syn. Inc. for sponsoring special Organic Chemistry Seminars at ODU chemistry department.

Dr. Nancy Xu

- ◆ Faculty Proposal Preparation Program Grant from the Old Dominion University Office of Research. The FP3 grants provide opportunities for faculty nominated by their dean, to develop and submit high quality, competitive proposals to extramural agencies. The program supports grant-making activities that substantially contribute to the prestige and growth of ODU's research profile and sponsored programs.

Research Experience for Undergraduates (REU):

- ◆ This summer, we will be hosting our first group of students for the department's NSF Research Experiences for Undergraduates (REU) site. Drs. Bayse and Holder received the grant last year to host community college students to perform research in chemistry, learn about potential careers in chemistry, and experience life as a chemistry major. After Memorial Day, ten students from across the country, including locally from Tidewater and Thomas Nelson Community Colleges, will arrive to begin their ten-week session. Check the next newsletter for highlights from the summer's activities.

Research Spotlight

Dr. Guijun Wang

Dr. Wang's group is conducting research in organic chemistry with an emphasis on the synthesis of chiral small molecules for biomedical applications and carbohydrate-based biomaterials. Carbohydrates are renewable and abundant natural resources. Taking advantage of what nature offers us for structural diversity and chirality in monosaccharides and disaccharides, we are developing new synthetic methods for biologically relevant compounds and advanced functional soft materials. Developing methods using sugars as the starting materials has significance in green chemistry and allows us to have access to molecular systems with unique physical and biochemical properties. Using readily available sugars such as glucose, glucosamine, lactose, maltose and starch, we have developed synthetic methods to obtain several classes of glycomimetics that are able to form reversible hydrogels and organogels. These functional gels are able to encapsulate small drug molecules and are useful for biomedical research as stimuli responsive controlled-release drug delivery vehicles. The creation of novel functional biocompatible materials from abundant carbohydrates is very important for the advancement of carbohydrate chemistry, material science, biotechnology and the biomedical field.

Besides the synthesis and study of glycoconjugates and understanding the structures and functions of monosugar derivatives, we are interested in synthesizing complex dendritic sugar derivatives and macrocyclic compounds that may find applications in materials, catalysis, and molecular recognitions. Another main research interest in the group is the synthetic methodology development and catalytic reactions for effective synthesis of compounds that are of

biological activities or natural products. The research group is currently continuing with the synthesis of novel chiral ligands for catalysis and the synthesis and study of carbohydrate derivatives for applications in catalysis, enzyme immobilization and biosensors. In collaborations with other researchers, we are also studying the application of glycomimetics in controlled-release of biological molecules and as soft biomaterials for tissue engineering.



Back Row (L to R): Dan Wang, Sanjeeva Didkaoati, Jonathan Bietsch, Kristen Bashaw - Front Row (L to R): Anji Chen, Surya Adhikari, Dr. Guijun Wang, Pooja Sharma, Joedian Morris

Research Spotlight, *continued*

Dr. Guijun Wang

Dr. Wang has also trained an excellent group of students including postdoctoral researchers, graduate students, and undergraduate students. Former students were well prepared and are currently contributing to the work force in academic, government labs, and industry. Students will participate in interdisciplinary research projects in organic synthesis, bioorganic chemistry, medicinal, and materials chemistry. Through an ongoing collaboration, graduate students also have industrial internship opportunities with pharmaceutical companies.



Dr. Wang with her most recent graduate, Ifeanyi Okafor. Ifeanyi graduated with his Ph.D. in December 2017 and is currently working as a Post Doctoral Fellow in the Chemistry Department at Indiana University.



PhD student, Joedian Morris, member of Dr. Wang's research group, is preparing a column to purify one of her compounds by way of column chromatography.

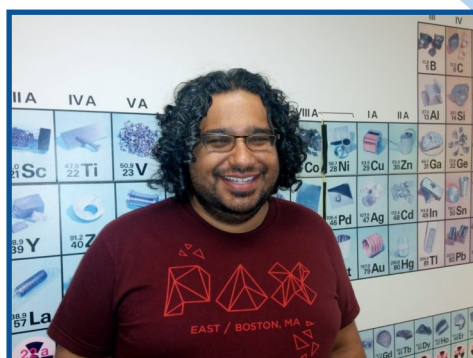
2017-2018 Student Award Winners



Karam Obeid

Outstanding Student in Analytical Chemistry

Karam is junior majoring in Biology. He plans to apply to Med School next year. His brother, Wassim, received his Ph.D from our department.



David Amarasinghe

Outstanding Student in Physical Chemistry

David received his bachelors in math from George Mason University in 2008. He started taking chemistry courses “for fun” here at ODU in 2013. He has been accepted at the University of California at Riverside for their Chemistry PhD program which starts in July.



Phillip Gilroy-Reynolds

Outstanding Student in Inorganic Chemistry

Phillip, majoring in chemistry, is graduating this month. He has worked at Canon Information Technology Services in Chesapeake for over 10 years. His current job is tech support for cinema movie cameras, but he plans to change careers and go into the chemical industry.



Brendon Wilkins

***Outstanding Graduating Senior Chemistry
Outstanding Senior Thesis***

After graduation Brendon plans to visit Amsterdam and the Netherlands before starting his job as a nuclear engineer at the Norfolk Naval Shipyard, where he will be updating, repairing, and maintaining the nuclear reactors on naval ships.



Naser Salem

Outstanding Freshman Chemistry Student

Naser came to this country from Palestine to major in biochemistry at Old Dominion University. He is very happy here – he commented that “it feels like a family here at ODU”. Looking into his future he sees several possibilities – biomedical engineer, pharmaceutical career, or possibly medicine.

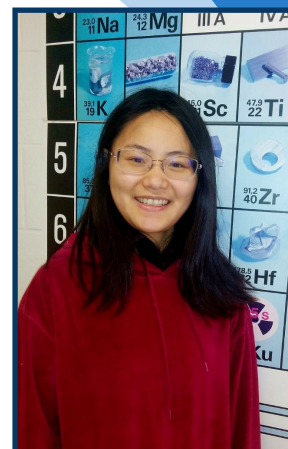
Great Job!

2017-2018 Student Award Winners, *continued*



Nathan Jentink
Outstanding Student in Organic Chemistry

Nathan is a junior majoring in biochemistry. He plans to apply to grad schools upon graduation.

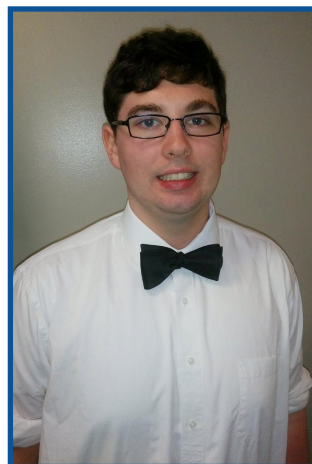


Chenxi Luo
Outstanding Student in Physical Chemistry

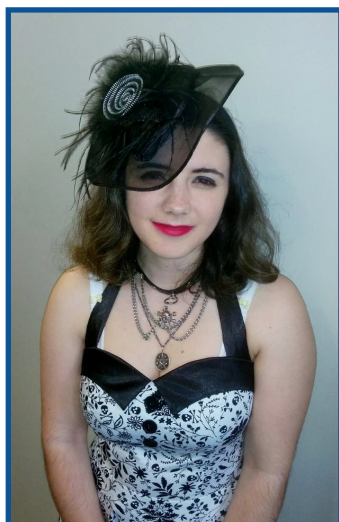
Chenxi Luo is majoring in biochemistry. She will graduate in December 2018. She plans to apply to Masters programs in biochemistry this fall.

Stephen Johnston
Outstanding Graduating Senior Biochemistry Undergraduate Award in Organic
Outstanding Student in Biochemistry
Outstanding Senior Thesis

Stephen completed his degree in biochemistry in three years. He was recently accepted to continue his academic career at Eastern Virginia Medical School. He works part-time at Maryview Medical Center.



Storm-Marie Allmon
Outstanding Teaching Assistant
Storm-Marie is a PhD student and teaching assistant for the organic labs. Storm-Marie is a member of Dr. Ramjee's research group.



2017-2018 Graduates



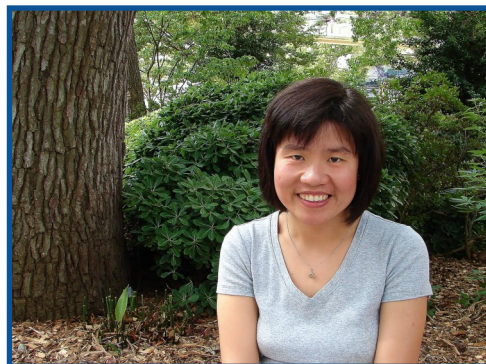
Ifenyi Okafor
PhD Chemistry—Fall 2017



Anji Chen
PhD Chemistry—Summer 2018



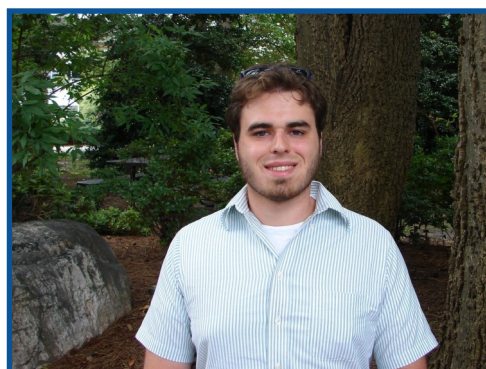
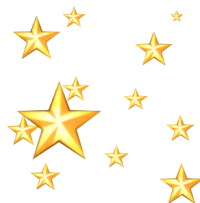
Ashley Shoaf
PhD Chemistry—Summer 2018



Preeporn Songkiatisak
PhD Biomedical Sciences—Spring 2018



Adenrele Oludiran
MS Chemistry—Summer 2018

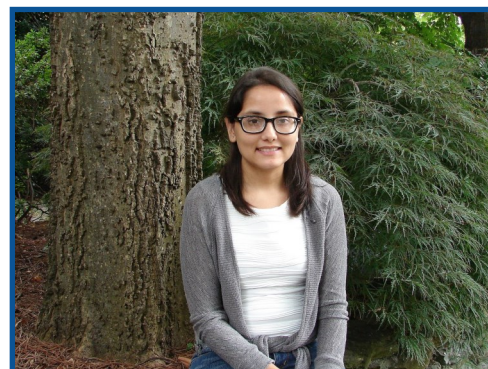


Watson Stahl
MS Chemistry—Summer 2018

Continuing PhD Students Earning their MS Degree - Spring 2018



Zeinab Haratipour



Astha Pokhrel

Undergraduates Present Regional ACS Meeting

The 50th annual Southeast Undergraduate Research Conference (SURC), an American Chemical Society meeting, was held in Oxford, MS at the campus of Mississippi University on February 2-3, 2018. This is a rotating conference which is hosted by a different university each year. Previous hosts include Georgia Tech, University of Alabama, and University of Tennessee. This year's conference had more than 100 presenters from 10 states.

Two Old Dominion students, Melissa Madril (top right) and Cody Scott (bottom right), made the trip to SURC this year where they each presented their research in the form of a 15 minute talk. Mr. Scott and Ms. Madril are both undergraduate research fellows working with Dr. David Courson and Dr. Erin Purcell in the Department of Chemistry and Biochemistry through the ODU Program for Undergraduate Research and Scholarship (PURS). Melissa Madril is a senior in Biology who is actively deciding what to do after she graduates. She knows she wants to pursue laboratory work and is currently interested in graduate school in microbiology and industrial laboratory research positions. She presented a talk featuring her research on the aerotaxis (bacterial motility in response to oxygen) and chemotaxis (bacterial motility in response to small molecules) behaviors of the anaerobic human gut pathogen *Clostridium difficile*. Cody Scott is a junior in Biology who is already accepted to EVMS medical school. He presented a talk on his research into the effects of *Clostridium difficile* toxins on the mammalian gut epithelium. This was the first time either presented at a conference. Though their projects were biology focused, their work was well received and indeed fit the conference well, which included a keynote address by M.G. Finn from Georgia Tech focused on vaccine development using techniques at the interface between biology and chemistry.

Of the experience, Ms. Madril said, "Attending the conference was extremely nerve-racking and exciting at the same time. This was a huge opportunity and would be an extraordinary experience in preparing me for the adult world. This conference has offered much more than I anticipated and I am grateful for the experience and opportunity to grow."



Research Assistant Professor Featured

Most discoveries begin not with "Eureka!" but with "Huh, that is weird." So it was 10 years ago when Dr. David Courson, then a graduate student and now a Lecturer and Research Assistant Professor in the Department of Chemistry and Biochemistry at Old Dominion, sat down at a microscope in Woods Hole, MA. As part of a summer research program through the Marine Biological Laboratory, Courson was looking at the organization of proteins inside the fertilized egg of a *C. elegans* (ground worm). Already an experienced microscopist, what he saw startled him. The proteins he was observing moved around inside the cells, but they didn't move like anything he had seen before. The proteins appeared to cluster and the clusters grew and shrank in a way that implied they were not bound by a membrane or anchored to an underlying substrate. Further, when two clusters bumped into each other, they fused into a single cluster. They behaved as suspended liquid droplets. Liquid phase separation, as in a lava lamp, is a known phenomenon in physics but it had not been observed in biology. Courson conferred with his experimental partner, Lindsey Moore, and then with their supervisors. It quickly became apparent that what they were observing was a novel form of subcellular organization. The work was published in the journal *Science* later that year and has since spawned an entire field of research with hundreds of investigators and thousands of papers published. To this day, Dr. Courson remains stunned by the events that cascaded from the simple act of turning on a microscope one Summer day in MA. For the ten year anniversary of the first publication, the journal *Nature* commissioned a retrospective piece on the development of the field of biological phase separation.

It can be found here: <https://www.nature.com/articles/d41586-018-03070-2>



Graduate Students Present at National ACS

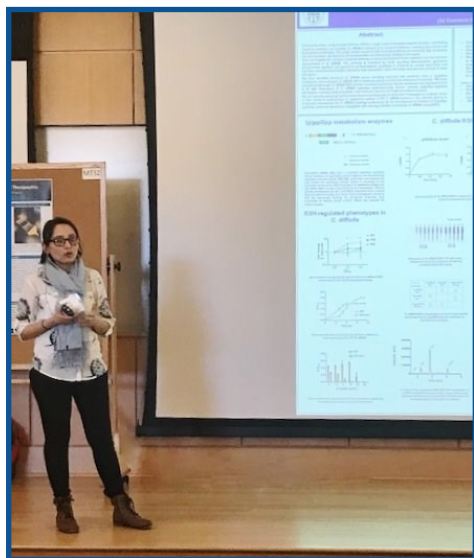
This past March, four Ph.D. students and one faculty member from our department had the opportunity to attend the 255th American Chemical Society National Meeting and Exposition in New Orleans, Louisiana. The conference lasted from Sunday, March 18th, to Thursday, March 22nd. Dr. James Lee and his Ph.D. student Thu Nguyen attended along with three students from Dr. Lesley Greene's group, John Bedford, Cherrelle Barnes, and Zeinab Haratipour. Each year the ACS organizes two national meetings & expositions with each one attracting up to 13,000 educators, students, and professionals in the field of chemistry & biochemistry. John Bedford and Zeinab Haratipour had the privilege to present their research by giving 30 minute talks at the conference and Thu Nguyen and Cherrelle Barnes presented posters. All four students represented the Chemistry & Biochemistry Graduate Programs and the Biomedical Sciences Program at Graduate Fair the Sunday prior to the main conference events. They met many students looking for a future graduate school and represented our department with outstanding attitudes and lots of smiles!



L to R: Thu Nguyen, Zeinab Haratipour, Cherrelle Barnes, John Bedford

Graduate Students Present at EVMS

This spring, the Eastern Virginia Medical School (EVMS), opened up its annual Graduate Student Research Conference to neighboring universities around the region. The EVMS Graduate Student Research Conference took place on Friday, March 23rd. Many students in the Department of Chemistry & Biochemistry here at ODU were excited to get the chance to share their research with others in their field. Seven students from the ODU Department of Chemistry & Biochemistry presented posters at the event and three students were asked to present their research on stage for a 10 minute presentation. Ph.D. students John Bedford, Andrea Korell, Asia Poudel, and M.S. student Adenrele Oludiran presented posters at the event. Ph.D. students Astha Pokhrel, Meghan Warden, and Andrea Yawn presented both posters and a small presentation. Astha Pokhrel (pictured at left) won best overall presentation by a student outside of EVMS! This was a wonderful opportunity for our students to share their research with others in their field as well as learn about some of the other interesting research being performed in neighboring schools.



Alumni News

Gugu Rutherford

Contamination Control and Planetary Protection Engineer

Systems Integration & Test Branch

NASA Langley Research Center

I am a native of Virginia Beach, VA, and a graduate of First Colonial High School. As a high school student, physics and chemistry were my favorite subjects. After graduating high school, I served in the United States Navy Reserves for 8 years, balancing Navy life and single motherhood. It was a difficult time, but I found encouragement and motivation as I was able to give back and serve my community under the Navy umbrella. After several failed attempts to return to college, I came back to Old Dominion University in 2009 as full-time student double majoring in chemistry and biochemistry.

During my undergraduate studies, I was fortunate to have Dr. Kenneth Brown and Dr. Pinky McCoy as mentors. Balancing a family, working as a reservist and studies was challenging. However, Dr. Brown and Dr. McCoy were always there to provide support and advice on how to multitask my many duties while completing my degree. They encouraged me to seek undergraduate research. I was a member of ODU's American Chemical Society student chapter and participated in multiple outreach opportunities to encourage future generations to explore STEM degrees, and it was through these connections that established my initial network at ODU. From my network, I was able to intern with ODU's Department of Ocean, Earth, and Atmospheric Sciences under Dr. Gregory Cutter in chemical oceanography. I graduated in May 2012 with a Bachelor of Science in Chemistry and Biochemistry, and I continued with Dr. Cutter's research group as a research associate specializing in analytic techniques to determine the speciation of arsenic in marine samples.

The track to my current career began with my undergraduate studies at ODU. I was able to use my research experience and technical acumen from ODU to get a full fellowship at Norfolk State University's Center for Materials Research and complete a Master of Science in Materials Science. Immediately after obtaining the Master of Science in Materials Science, I went to work for NASA Langley Research Center as a Contamination Control and Planetary Protection Engineer.

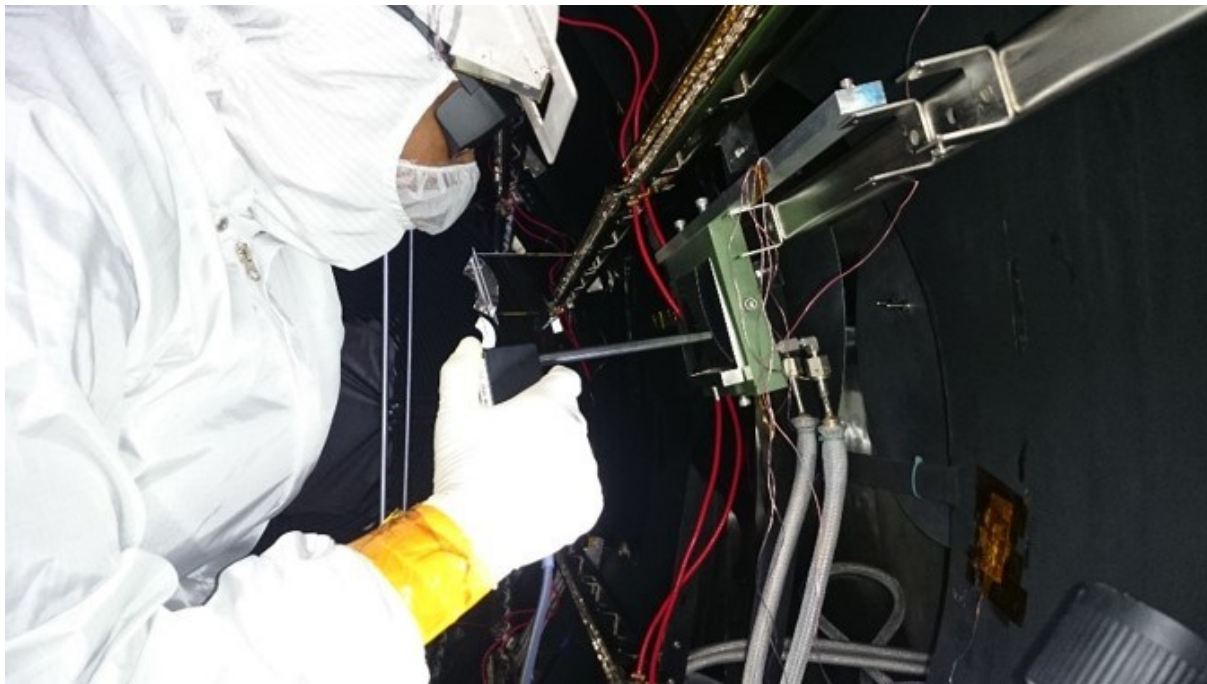
As a contamination control and engineer, my duties include generating requirements to reduce the likelihood of molecular and particulate contamination impacting the performance of thermal, electrical, optical, and mechanical systems in the space environment. The other role as a planetary



Alumni News, *continued*

protection engineer involves monitoring the amount, location, and identification of bioburden on space payloads by setting a mitigation plan to meet requirements to reduce the likelihood of carrying an egregious amount of bioburden to and from earth which would violate Article IX of the 1967 United Nations Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space. My colleagues and I fondly refer to contamination control as “rocket surgery” and planetary protection as “guardians of the galaxy”.

My work schedule is typically 8:00am to 4:30pm, but I am often traveling to many facilities where space flight hardware is being assembled, integrated, and tested in cleanroom facilities. While I am at these facilities, I inspect and collect samples from any potential contamination issues to be analyzed at the NASA Langley labs. Some of the tools that I use for analysis include Gas Chromatography-Mass Spectrometry, Raman Spectroscopy, Fourier Transform Infrared Spectroscopy, and Scanning Electron Microscopy-Energy Dispersive X-ray Spectroscopy to name a few. I am still amazed that I get to do what I do every day, but I know that ODU is where I began my entry to this career field. My aspirations for the future is to come back to ODU and inspire other Monarchs to apply for NASA internships so they can see other applications of chemistry. Even though I have the title of engineer, I am still using more chemistry tools to ensure that NASA can achieve its mission goals. I encourage any student interested in opportunities at NASA to go to <https://intern.nasa.gov/> to apply for NASA Internships and Fellowships.



Alumni - undergrads and grads - please email your story and a photo to Alicia Herr at aherr@odu.edu

Alumni News, *continued*

Thomas Sprinkle

Environmental Chemist

Norfolk Naval Shipyard

My time at ODU didn't start in the chemistry department, it started in the Music department as a music education major. After my first year I realized I wanted to do something a bit more challenging so found myself drawn to the chemistry department as biochemistry. Hands down, the best decision I could have made. The community in the chemistry department made the difficult tasks easier. A great series of opportunities and enjoyment came with the American Chemical Society student affiliates of ODU. This group of individuals, student and faculty alike, made chemistry more fun than I could have ever imagined. I met some of my closest friends through this organization and gave me some of the happiest memories of my life.

As for my studies at ODU, well, I eventually found myself changing from a biochemistry major to chemistry major after realizing that biochemistry wasn't my strongest area. I particularly enjoyed physical chemistry taught by Dr. Brown, although most people at the time thought I was crazy for that. Other subjects I enjoyed were instrumental analysis, organic, and inorganic chemistry. As for my

favorite professor, I honestly don't think I could ever pick one. Many of them had a positive impact on my studies and who I am today. A few names that come to mind though are Dr. Brown, Dr. Gregory, and Dr. Cooper. These professors had a way about explaining advanced chemistry material that always seemed to make sense to me. And of course, I could not forget Dr. Poutsma and Dr. Melzer, who went above and beyond to make chemistry not just enjoyable, but fun. Later in my undergraduate studies, I started working with Dr. Gregory in his group researching polyaniline. Eventually I found myself close to graduating and decided to continue my education in the MS program. I was fortunate enough to be offered a teaching assistantship for the time during my master's degree which allowed me to develop my teaching and public speaking skills, two areas which came in handy during my research seminar and thesis defense.

Upon leaving ODU I found employment at Norfolk Naval Shipyard as a radiological control technician. Shortly after I was married and bought a house. And life, until recently, has been steady. My wife and I welcomed our first born in late 2017 and I got my new job at the shipyard as an Environmental Chemist. I now work with GC and GC/MS on a daily basis and couldn't be happier. I now look forward to learning all I can about the quality assurance process and combining that with the knowledge I have gained over the years. I have the ODU chemistry department to thank for everything it gave me through education and life experiences.



Graduate Student News

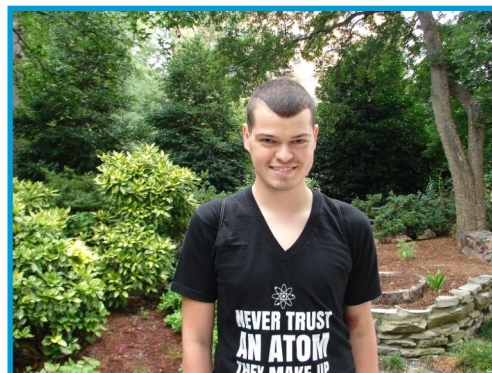
Dominion Scholar

The Chemistry and Biochemistry Department would like to recognize Surya Adhikari, PhD student with Dr. Wang and Alex Goranov, PhD student with Dr. Hatcher for being chosen as College of Sciences Dominion Scholars. The Dominion Scholar Fellowship is designed to provide support for a student in the Chemistry and Biochemistry Ph.D. program to spend full time in pursuit of their research and studies. The fellowship provides students with \$18,000 a year for two years.



Surya Adhikari

Alex Goranov



Jonathan Bietsch

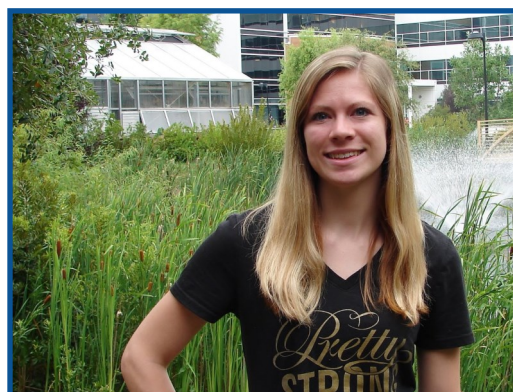
Van Norman Travel Grant

The Van Norman Graduate Travel Award provides support for two student in the Chemistry & Biochemistry PhD Program to present their research at a national or international conference. The award is meant to supplement the advisor's contribution to travel expenses. Two \$450 awards are given each year. The 2018-2019 Van Norman Travel Grant was awarded to Jonathan Bietsch, PhD student with Dr. Wang and Andrea Korell, PhD student with Dr. Pascal.

Virginia Space Grant Consortium

Andrea Korell, PhD student with Dr. Steven Pascal, was awarded a grant from the Virginia Space Grant Consortium for 2018-2019.

This grant is a very competitive award which encourages STEM-related research, while recognizing high academic achievement. The students received a \$6,000 fellowship to support their research.



Andrea Korell

Graduate Student News, *continued*

Cherrelle Barnes Receives Summer CDC Fellowship



PhD student, Cherrelle Barnes, works in Dr. Lesley Green's group, received a CDC Fellowship for the upcoming summer. The Dr. James A. Ferguson Emerging Diseases RISE Fellowship program aims to support graduate students who have interest in public health research in the areas of infectious diseases and health disparities. The Ferguson RISE Fellowship is funded by the Centers of Disease Control and provides a \$4500 stipend through the nine-week summer program at either the Centers of Disease Control in Atlanta, GA or the Kenny Krieger Institute in Baltimore, MD. Cherrelle has always had a passion for genetics and believes it hold a wealth of valuable

information on diseases that pose a threat to public health. The fellowship will give Cherrelle the opportunity to gain laboratory experience in a federal research laboratory, which aligns with her career goals. She will also be able to experience the clinical side of research, which she believes will further inspire her. Those interested in information or applying for the Dr. James A. Ferguson Emerging Diseases RISE Fellowship program please visit <https://www.kennedykrieger.org/professional-training/professional-training-programs/center-for-diversity/ferguson-fellowship>

Jonathan Bietsch Receives Graduate Summer Research and Creativity Grant

Old Dominion University's Graduate School recently announced the inaugural recipients of the Graduate Summer Research and Creativity grants, which help students work on summer research projects. PhD student Jonathan Bietsch, works in Dr. Guijun Wang's lab, was one of those recipients. Jonathan's project is titled "*D-Glucosamine based supra-molecular gels as soft materials for 3D gel printing.*"

An interdisciplinary group of faculty members and administrators from the University reviewed the applications and chose six winners out of 43 applicants. The grant program was spearheaded by Elizabeth Groeneveld, an assistant professor of women's studies, who advocated for supporting graduate student research, much as the Honors College supports undergraduate research projects.

"The Graduate School and the Office of Research are pleased to announce the inaugural recipients of the Graduate Summer Research and Creativity Grant awards," said Robert Wojtowicz, dean of Old Dominion's Graduate School. "The six projects chosen represent the remarkable breadth of the research being conducted by our graduate students in the laboratory, the library and the field."

Jonathan will receive \$3,000, with an additional \$300 allowed for a conference travel related to the work. At the end of the summer, Jonathan will provide a report of his work to the Graduate School.

