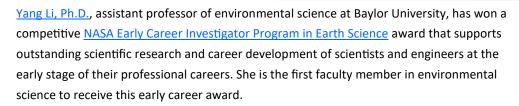
Environmental Science

Summer 2024



Dr. Yang Li Earns Research
Support from NASA's Early
Career Investigator Program in
Earth Science

Baylor Press, March 2024



Li's innovative research project – <u>Understanding Evolving Chemistry in Wildfire Smoke: Leveraging Remote Sensing Observations in Multi-Scale Modeling</u> – aligns with NASA's Earth Science Division priorities, including increasing the use of space-based remote sensing, integrating space-based remote sensing data with other datasets (e.g., surface, air) and into models and delivering actionable Earth science – making Earth science data more usable and impactful for the benefit of humanity.

"This research will leverage remote sensing observations to better constrain three-dimensional atmospheric modeling," Li said. "This will allow us to use model results and products from ground networks to support validation of Tropospheric Emissions: Monitoring of POllution (TEMPO) observations by providing in-depth interpretation of evolving chemistry, UV aerosol observations and standard trace gas products, thereby enhancing the usage of TEMPO datasets to interpret air quality in the U.S. in the long term."

A Ph.D. graduate of the University of Michigan, Li joined Baylor and the environmental science faculty from Harvard University, where she was a Postdoc Fellow working on MethaneSAT and MethaneAIR data analysis and science applications, with a focus on greenhouse gas flux inversion. Her other research projects at Harvard centered on using a coupled modeling framework to investigate the impacts of future changes in climate, vegetation and land use practices on dust mobilization and wildfire activity.

More on this story can be found from the Baylor University Media & Public Relations—Research



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Dr. Melinda Coogan Retires: Thankful for A Career of Service, Dedication, and Purpose



Dr. Melinda
Coogan's academic journey is
a testament to
her unwavering
dedication to
education, research, and
environmental
advocacy. Prior
to her tenure at
Baylor Universi-

ty, Dr. Coogan held the esteemed position of a tenured Professor of Biology at Buena Vista University (BVU) in NW lowa, where she left an indelible mark on the academic landscape. At BVU, she not only developed a pioneering freshwater biology program but also served as the President of the prestigious lowa Academy of Science, showcasing her leadership and expertise in the scientific community.

Dr. Coogan's commitment to fostering global perspectives and sustainability transcended traditional boundaries through her creation of the BVU Global Fellows Program. This innovative initiative empowered students to engage in academically rigorous international experiences in Chile, addressing pressing issues of sustainability and geopolitics. Under her guidance, students thrived, gaining invaluable insights into the interconnectedness of global environmental challenges.

In 2018, Dr. Coogan embarked on a new chapter in her career, joining Baylor University as a Lecturer in the Department of Environmental Science. Since then, her impact has been nothing short of transformative. Through her dynamic teaching approach, Dr. Coogan has enriched the academic experience of countless students, offering a diverse array of lecture and field-based courses.

Her dedication to undergraduate research is exemplified by her leadership in developing a wetland research project for the Baylor Interdisciplinary Core program and mentoring numerous students in their scholarly pursuits. Notably, her mentorship of a McNair Scholar led to the establishment of a highly successful undergraduate research program focusing on zebrafish toxicology.

Under Dr. Coogan's mentorship, several undergraduate students from the Coogan Zebrafish Toxicology Lab (ZTOX Lab) achieved remarkable milestones, with multiple manuscripts accepted for publication and recognition with the prestigious Baylor Scholars Week Award for Outstanding Student Presentations. Furthermore, her collaborative efforts with Baylor science majors resulted in the formation of the **Students for Environmental and Wildlife Protection** (SEWP) organization, highlighting her commitment to fostering environmental stewardship among future generations.

In recognition of her exemplary contributions, Baylor University was honored to be accepted as the thirteenth Chapter of **Pi Epsilon**, the National Environmental Sciences Honor Society, under Dr. Coogan's guidance. As she embarks on the next phase of her journey, Dr. Coogan remains grateful for the enriching experiences and meaningful connections forged within the Baylor community. In the eloquent words of Eudora Welty, "It is our inward journey that leads us through time—forward or back, seldom in a straight line, most often spiraling."

Thank you for all that you have given Baylor, the students, and our department. You will be missed!

Dr. George Cobb Receives Distinguished Alumni Award

Dr. George P. Cobb was recently honored as the 2024 Outstanding Chemistry Alumni Award from the University of South Florida. The award was presented at the annual Awards Banquet in Tampa Florida by Dr. James Leahy, the Chair of the USF Chemistry department. Dr. Cobb and Dr. Leahy were classmates at USF in the 1990's.

Dr. Cobb's journey as an environmental chemist began with a Bachelor of Science degree in Chemistry from the College of Charleston (CofC), where his research under the mentorship of Dr. Frank Kinard explored the effects of chlorinated pesticides and metals on sea turtles. Guided by the vision of excellence, Dr. Cobb's academic trajectory was further propelled by the mentorship of CofC faculty member and alumnus, Marion



Doig. Under the guidance of Dr. Robert S. Braman, Dr. Cobb pursued a Doctorate in Analytical-Environmental Chemistry at USF, focusing his research on sampling of atmospheric organic chemicals in vapor and particle phases.

Dr. Cobb's commitment to scholarship and innovation has been evident throughout his career. He played a pivotal role as a charter member of the Faculty of Environmental Toxicology Department at Clemson University, where his expertise and leadership contributed significantly to the department's growth and development. Subsequently, he held a similar charter faculty member in the Department of Environmental Toxicology at Texas Tech University.

Dr. Cobb expressed his gratitude for the opportunities provided by USF, which served as the foundation for his significant contributions to the field of environmental chemistry and ultimately led to his receipt of the 2024 Outstanding Chemistry Alumni Award. He also was able to meet the recipient of the fellowship named for his mentor, R.S. Braman, and the two most recent graduate students who received the Ashford Fellowship which Dr. Cobb received as a student at USF.

Dr. Cobb serves as an American Chemical Society Fellow, a Society of Environmental Toxicology and Chemistry, and is a member of the Committee on Science. Previously, Dr. Cobb served as Chair of the American Chemical Society's Division of Environmental Chemistry and President of Society of Environmental Toxicology and Chemistry, North America. He now chairs the United States Environmental Protection Agency's Science Advisory Committee on Chemicals.

Congratulations Dr. Cobb, well done!

Dr. Bryan Brooks is Selected to Serve on the American Association for the Advancement of Science (AAAS)

Congratulations to Distinguished Professor of Environmental Science and Public Health, Dr. Bryan Brooks on his selection to serve on the Executive Committee Council of the American Association for the Advancement of Science!

The American Association for the Advancement of Science Council is the governing body responsible for overseeing the AAAS Fellows process, the Multidisciplinary Working Groups, Section business, and serving as



a connective hub between governing bodies (Sections, Council, Board) as well as ensuring best practices with respect to ethics, diversity, and governance are implemented and upheld. Council Members may also serve on Council Executive Committee (CEC) or as Council Chair, if elected by their peers.

The American Association for the Advancement of Science is the world's largest multidisciplinary scientific society and a leading publisher of cutting-edge research through its *Science* family of journals, AAAS has individual members in more than 91 countries around the globe. Membership is open to anyone who shares our goals and belief that science, technology, engineering, and mathematics can help solve many of the challenges the world faces today. You can lend your support to our efforts on behalf of scientists, engineers, educators, and students everywhere by becoming a member.

HISTORY OF AAAS

The formation of AAAS in 1848 marked the emergence of a national scientific community in the United States. While science was part of the American scene from the nation's early days, its practitioners remained few in number and scattered geographically and among disciplines. AAAS was the first permanent organization formed to promote the development of science and engineering at the national level and to represent the interests of all its disciplines.

Participants in AAAS meetings, held in cities across the country, represented a who's who of science. The meetings were covered widely by newspapers, which sometimes reprinted their proceedings verbatim.

However, AAAS's permanence was not preordained and, despite the many contributions it made during its first 50 years, the Association came close to extinction more than once. Ultimately, an alliance with *Science* magazine, which had failed as a private venture, rejuvenated both the magazine and AAAS.



150 YEARS OF ADVANCING SCIENCE

The life of AAAS has been interwoven with the growth of American science. In celebration of its sesquicentennial in 1998, AAAS created an exhibit of artifacts, providing a glimpse at some of the people and events that have left an impression upon the association's history.

Dr. Brooks' interdisciplinary research interests broadly include understanding how anthropogenic activities and stressors interact with various levels of biological organization, particularly in rapidly urbanizing regions. He actively engaged in environmental toxicology and chemistry, environmental public health, and hazard and risk assessment studies on six continents. Dr. Brooks and his students focus current research on water quality and water reuse/recovery, comparative toxicology and pharmacology, applied ecology, sustainable molecular design, environmental chemistry and bioaccumulation, developing approaches to define risks of contaminants of historical and emerging concern, natural resource extraction and the ecology and toxicology of harmful algae blooms. This research contributes to developing science-based approaches to define and manage complex environmental and health issues.





Baylor's Community Garden Is SCRAP!

Renowned Professor Emeritus of Environmental Science, Dr. Susan Bratton, stands as a visionary force behind the flourishing community garden nestled within the heart of Baylor's campus. With unwavering dedication, Dr. Bratton championed the garden's inception, a dream realized when the Board of Regents granted approval in 2010, culminating in its vibrant establishment in 2011. However, the disruptive force of COVID-19 momentarily stilled its verdant rhythm.

Yet, resilient as the seeds it nurtures, the Baylor Community Garden emerged from the pandemic's shadow in 2023 with renewed vitality. Spearheaded by the indefatigable efforts of the Campus Kitchen student organization, the garden once again be-



came a beacon of hope, cultivating not just vegetables but also a spirit of compassion for communities grappling with food insecurity. Under the tutelage of Doug Nesmith, community gardening classes, now integrated into the curriculum of Philanthropy and Public Service, bloomed in diverse forms, enriching minds with the knowledge of sustainable cultivation practices.

What began as a modest endeavor has now blossomed into an integral component of the grand tapestry known as the **Sustainable Community and Regenerative Agriculture Project** (SCRAP). This ambitious initiative, born



from a collective vision of a healthier, more resilient future, weaves together a rich fabric of urban gardens, farms, composting sites, and educational programs. Through SCRAP's tireless endeavors, community health is nurtured, climate resilience fortified by the reduction of landfill emissions, equity championed, and local food sovereignty empowered.

The symbiotic relationship between Baylor University and SCRAP has flourished, bolstered by a plethora of partnerships that have only deepened over time. The remarkable growth highlights achieved since August 2023 are detailed, alongside an ever-expanding roster of esteemed Baylor partners, each contributing their unique expertise and passion towards the shared mission of fostering sustainable communities and nurturing a healthier world for all.

Current Contributing Baylor Partners:

Aca demic Departments, Schools, Units, and Programs:

- Environmental Science: Lab Coordinator and soil chemist Doug Nesmith has been a leading collaborator and advisor and taught contributing community garden classes every semester through Philanthropy and Public Service. He has also led several composting workshops.
- Environmental Humanities Minor (represents 18 departments, (including Environmental Science), and programs across the university): Di-





Lab Coordinator of Environmental Science, to create the campus composting program, improve infrastructure, and support the gardening program. Dr. King



 School of Education: Dr. Boddie has involved Education students in work at the Garden and related community engaged learning projects since 2018. This work has expanded to include partnerships with faculty and staff in the School of Engineering and Mayborn Museum.



 Mechanical Engineering, School of Engineering and Computer Science: Brian Thomas and Dr.
 Min Pack are directing a Special Projects in Engineering section Summer 2024 to restore the Garden rain catchment system with support from the Engineers with a Mission, and with the endorsement of their department.



Community Garden, CONT:

2023 Highlights: Volunteers, Classes, Garden Activities Since August 2023

- Over 568 students, faculty, and staff have participated in our composting and gardening programs, including related educational workshops and volunteer workdays
- 12 volunteer days, special educational events, and workshops (e.g., on Organic Gardening and Food Sustainability") have been held at the Garden.
- Class projects and special sessions from English, History, Modern Languages and Cultures, Philanthropy and Public Service, Environmental Science, Social Work, and Education have regularly used and nurtured the garden.
- 2,483 pounds of food waste have been diverted from the landfill and nearly 1,200 pounds of compost have been created to nourish nutrient-rich soil and plants by faculty, staff, and students in our composting and gardening programs.
- Several crops of vegetables have been grown to redress campus food insecurity through distribution at The Store (campus food pantry).
- Multiple departments are collecting food waste for the composting program, such as Environmental Science, English, Sociology, and Theatre (among others).



GARDENTOTABLE



On April 25, 2024, the SCRAP team held a dinner event where approximately 135 attendees, including President Livingstone, came to honor the garden managers, Annecy Marsh and Morgan Ganer as well as the current SCRAP project facilitator, Andrea Valdez. The main dishes were chef prepared complemented with fruits and vegetables from the Baylor Community Garden.



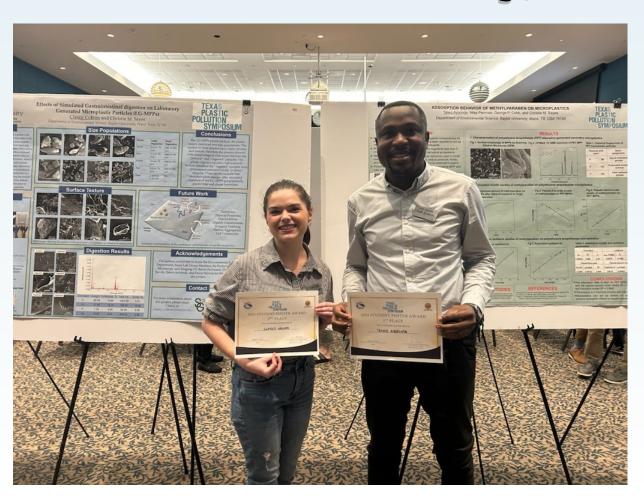
Top Left: Doug Nesmith presenting awards to Andrea Valdez, Morgan Ganer, and Annecy Marsh. **Bottom left:** First gent and President Livingstone. **Bottom right:** Attendees preparing their plates with fresh veggies from the garden.



Grad Students Take First and Second Place at Symposium

During the 6th Annual Texas Plastic Pollution Symposium convened at Texas A&M University - Corpus Christi on March 21st, 2024, the culmination of academic excellence was witnessed as Taiwo Ayorinde and Clancy Collom, both of the Sayes Lab, clinched the prestigious top two spots in the highly competitive student poster competition. Taiwo's groundbreaking research, delving into the intricate nuances of "Adsorption behavior of methylparaben on microplastics," not only captivated the audience but also earned him the esteemed first place accolade. Meanwhile, Clancy's remarkable presentation, elucidating the profound "Effects of simulated gastrointestinal digestion on laboratory generated microplastic particles," secured her a well-deserved second place, underscoring her exemplary contribution to the field. Their achievements not only underscore the depth of talent but also the commitment to advancing our understanding of plastic pollution, setting a sterling example for future researchers to emulate.

Sic'em Taiwo & Clancy!



Recognizing Excellence

The Annual J. Harry and Anna Jeanes Academic Honors Week, overseen by the Honors College, was held on April 19, 2024, in the Barfield Drawing Room. This endowed event is a cherished tradition, celebrating and honoring the exceptional undergraduate experience at Baylor University.

During this event, the Department of Environmental Science recognized academic excellence by honoring three outstanding students:

- Amy Cox, a major in Environmental Studies
- Ruth Deffenbaugh, who is pursuing a dual major in Biology and Environmental Science
- Macy Williams, majoring in Environmental Health Science

These students were celebrated for their outstanding achievements and were treated to a special convocation lunch, generously sponsored by the Dean's office. The lunch took place at the Baylor Club and was attended by Chair, George Cobb and Professor Julie King, who joined in congratulating these exceptional scholars.

Congratulations ladies, well done!



From L to R: Julie King, Macy Williams, George Cobb, Amy Cox, and Ruth Deffenbaugh

Meet Dr. Andrew Stainback

Dr. Stainback joined Environmental Science as our newest lecturer in the Fall of 2023. He has an interdisciplinary background in natural resource management, economics, and environmental policy. Before coming to Baylor, he was a faculty member at SUNY-Plattsburgh and the University of Kentucky. He also worked for an environmental non-profit organization in South Florida where he con-



ducted studies on the economic impact of ecological restoration efforts in the Florida Everglades. He has also done research on agroforestry and the integration of economic development and biodiversity management in Rwanda and Nepal. He has taught courses covering a range of topics including ecological economics, environmental law, and environmental management. At Baylor he teaches Exploring Environmental Issues (ENV 1301), Environment and Society (ENV 2376), Environment and Economic Analysis (ENV/ECO 4323), and Sustainability and Natural Resource Management (ENV 4355). He enjoys helping students develop the critical thinking skills and knowledge necessary to analyze environmental problems from a variety of disciplinary perspectives. His current research interests center on sustainable development, the valuation of ecosystem services, and natural resource management in both the domestic and international context.

Welcome Dr. Stainback!

Alumni Spotlight

Working on product sustainability at Estée Lauder

Dan Dinh, Assistant Manager, Product Sustainability at The Estée Lauder Companies in New York



At Estée Lauder, Dan Dinh spearheads initiatives in green chemistry, ingredient transparency, and packaging sustainability. She meticulously tracks product sustainability data across the company's extensive portfolio, collaborating with prominent brands such as Aveda, Clinique, and Origins to devise strategies for reducing Scope 3 emissions and packaging waste. At just 27 years old, Dinh leverages her expertise in environmental and public health, honed during her tenure at Cardno ChemRisk, where she evaluated personal-care product safety.

Dan Dinh graduated from Baylor with her B.S. in Environmental Health Science in 2018 and later earned an MPH in Environmental Health Science & Policy from George Washington University in 2020. Dan is currently featured in the June 17th issue of GreenBiz, a media and events company dedicated to accelerating the just transition to a clean economy. GreenBiz offers insightful, focused content on business, technology, and sustainability for professionals across all industries. Since 1991, GreenBiz has been a catalyst for thought leadership, aligning environmental responsibility with profitable business practices. This issue highlights 30 rising stars of sustainability, all under the age of 30.

Alumni Spotlight

Building A Climate and Environmental Leadership Program for Youth and Early – Career Professionals

Dannie Dinh, Program Manager, Interdisciplinary and Collaborative Research with Columbia University's Climate School



Standing: Dannie Dinh

For nearly ten years at the International Research Institute for Climate and Society, Dannie has supported cutting-edge research, developed and delivered comprehensive training programs, and implemented impactful projects aimed at enhancing water, food, and climate resilience through improved access to climate knowledge, advanced technologies, and decision-making tools. Starting in July, Dannie joined the Food for Humanity Initiative at Columbia University's Climate School as Program Manager. In this role, Dannie supports interdisciplinary and collaborative research, capacity building, educational development, and outreach efforts to promote and advance healthy and sustainable food systems.

Among her current projects, she is building a climate and environmental leadership program for youths and early-career professionals in the Lower Mekong Delta region in collaboration with the Education Development Center (EDC), as part of the U.S. Mission to ASEAN's Young Southeast Asian Leaders Initiative (YSEALI). After graduating from Baylor with her B.A in Environmental Studies and a minor in Political Science in 2013, Dannie completed her M.P.A. in Environmental Science and Policy from Columbia University's School of International and Public Affairs in 2014 and her M.A. in Climate and Society from Columbia University's Graduate School of Arts and Sciences in 2024.

Dannie is the older sister to Dan Dinh.

Graduate Students Successfully Defend Dissertations/Theses



On January 9, 2024 Sahar Pradhan defended her dissertation on, "Cellular Crosstalk in Environmental Neurotoxicology: Unraveling the Inflammatory Mechanisms along the Lung-Brain Axis". Sahar will graduate with her PhD in May 2024. Sahar secured a position with NIH as a Research Scientist in Maryland.

Mentor: Dr. Christie Sayes



On March 20, 2024 Kimberly Sauceda defended her thesis on, "Elevated Nighttime Isoprene Concentrations in the Houston Shipping Channel: Short-Range Transport Dynamics of Localized Industrial Emissions". Kimberly has been working as an Engineering Specialist with TCEQ in the Air Quality Division and is working on personal research to help those in her hometown who've been adversely affected by heavy industrial influences. Kimberly will graduate in May 2024 with her MS and plans to take

her engineering licensing exam at the end of the year.

Mentor: Dr. Rebecca Sheesley



On April 4, 2024 James Liu defended his dissertation on, "Novel Alternative Methods for the Inhalation Toxicology of Individual and Multi-Component Aerosol Exposures". James will graduate in August 2024 and start as a Research Scientist working on aerosol projects at the Applied Physics laboratory at Johns Hopkins, the largest University Affiliated Research Center (UARC) and is sponsored by the Navy, NASA, and other agencies.

Mentor: Dr. Christie Sayes

Graduate Students Successfully Defend Dissertations/Theses



On April 15, 2024 Mia Ryon defended her thesis on, "Influences of 23 different equations used to calculate gen copies of SARS-CoV-2 during wastewater-based epidemiology". Mia will be working for the Texas A&M Veterinary Medical Diagnostic Lab where she will perform molecular diagnostic testing analysis and report those results to regulatory organizations as part of ongoing government monitoring. Mia will graduate with her MS in August 2024.

Mentor: Dr. Bryan Brooks



On April 23, 2024 Alex Cole defended his dissertation on, "Toward an Understanding of Synthetic Glucocorticoid Hazards in Aquatic Systems". Alex will begin an internship with the Duluth, MN EPA in June and graduate with his PhD in August 2024.

Mentor: Dr. Bryan Brooks



On April 24, 2024 Clancy Collom defended her dissertation on, "Application of Bioanalytical Chemistry in Mixture Toxicology Modeling". Clancy will graduate in August 2024 with her PhD and begin her new role as Assistant Professor of Chemistry at Wayland Baptist University in the Fall.

Mentor: Dr. Christie Sayes

Congratulations May 2024 Graduates

ENVIRONMENTAL STUDIES —B.A.	ENVIRONMENTAL SCIENCE—B.S.	ENVIRONMENTAL SCIENCE—M.S.
Cole W. Bailey	Lucas N. Bell	Kimberly A. Sauceda-Neupane
Anna C. Brewer	Jack D. Benjamin	
Amy E. Cox **	Madison E. Breaux	
Susana L. Flores	Sean T. Burke ***	
Blake E. Gaskill ★	Ruth Deffenbaugh	
Thomas M. Greer	Taylor A. Frost **	
Jacob S. Janssen	Alexis M. Guzman	
Emily F. Kerschner	Elizabeth W. Jones ⊕	
Willie Leggett	Benjamin A. Marsh	
Michael B. Marco	Alec H. Mockros	
Jonathan L. McAllister	Jack Parr	
Jiami Mo	Abigail C. Smason	
Cecilia Rios	Isabelle S. Torrence *	
Kinsey F.L. Smeltzer	Stephanie N. Witsell	
Pamela Trevino-Contla		
Natalie Vorarath		
E	NVIRONMENTAL HEALTH SCIENCE	E-B.S.
	Aaron W. Dulong	
	Tori R. Menten	
	Macy J. Williams	

Completed Baylor Interdisciplinary Core requirements
 * cum laude *** magna cum laude ***summa cum laude
 ★ Commissioning as 2nd Lt, United States Army

Congratulations Doctoral Graduate — May 2024



Sahar Pradhan

Dissertation, "Cellular Crosstalk in Environmental Neurotoxicology: Unraveling the Inflammatory Mechanisms along the Lung-Brain Axis"

Mentor: Dr. Christie Sayes







St. Patrick's Day Fun

On St. Patrick's Day, Environmental Science hosted a small party with other science building departments and a few of our grad students.





Strange Sighting on Campus

Picture this: the tranquil flow of Waco Creek interrupted by an unexpected visitor. Baylor University's own Micah Bowman, ENV Ph.D. student and Brittany Carnathan stumbled upon an astonishing sight—an alligator! Amidst their routine, these graduate students found themselves face to face with nature's marvel, sparking both awe and excitement. Their unexpected encounter in Waco Creek serves as a reminder of the wonders that lie just beneath the surface of everyday life.



Spring 2024 Seminar Schedule



Week 01/24/2024	<u>Topic</u> Prof. Bryan Brooks, Department of Environmental Science, Baylor University
01/31/2024	Prof. John P. Giesy, University of Saskatchewan, Canada
02/07/2024	Dr. W. Baylor Steele IV, J.S. Held Consulting, San Antonio, TX
02/14/2024	Dr. Vivek Srikrishnan, Cornell University, Ithaca, NY
02/21/2024	CAPT (ret) John Sarisky, RS, MPH, DAAS. Nat'l Ctr, Env Hlth, CDCP, Atlanta, GA
02/28/2024	Dr. Theodore Valenti, Jr. Syngenta, Greensboro, NC (Online)
03/06/2024	NO SEMINAR: Spring Break
03/13/2024	Dr. Jeffrey A. Steevens, US Geological Survey, Columbia, MO
03/20/2024	Kaitlyn R. Kelly, MPH. Washington State Dept of Ecology, Seattle, WA
03/27/2024	Dr. John Doering, Louisiana State University, Baton Rouge, LA
04/03/2024	Prof. Daniel B. Oerther, PE, BCEE, CEHS, DLAAS, FAAN(h). Exec Dir, American Academey of Env Eng and Scientist, Missouri University of Science and Tech. (Online)
04/10/2024	Dr. John Wambaugh, US Environmental Protection Agency, Research Triangle Park, NC
04/24/2024	Dr. Daniel Villeneuve, US Environmental Protection Agency, Duluth, MN



Bryan Brooks:

UMN | Developing A Predictive \$467,439.00 / NSF | Treatment of Cyanotoxins \$119,983.00 USC | Climate Change \$236,275.00 / TX HHSC | Phase II Wastewater Testing \$259,480.00

TX HHSC | Phase III Wastewater Testing \$1,150,293.00

Ramon Lavado: NIH | Gulf Killifish \$418,702.00

Yang Li: APELC | Horn Antenna \$100,000.00

Ryan McManamay:

PNNL | DOE-IM3 \$324,560.00 / PNNL | DOE-Compass \$30,437.00

PNNL | ICoM \$212,790.00 / NSF | Yellowstone Flood \$63,967.00

Christie Sayes:

Vireo Advisors, LLC | Nanocellulose \$403,361.00 / USDA | Nano Therapeutics HLB \$235,354.00 USDA | SIT using X \$171,697.00 / HJF_AFRL | Machine Learning Models \$200,000.00

Rebecca Sheesley:

DOE | Tracer Map \$1,130,400.00 / NSF | BEAR – oNS \$266,622.00 U of Houston | TCEQ-2023 Air Quality \$75,000.00 / DOE | Gas-phase precursors \$437,379.00

Hyeong-Moo Shin:

NIH | Prenatal Exposure \$427,836.00 / Syngenta | Pesticide Exposure \$198,739.00

Sascha Usenko:

U of Houston | TCEQ-AQ2 Analysis \$85,500.00 / U of Houston | TCEQ-Carbon Monitoring \$675,000.00



*Ryon, M.G., Langan, L.M., Brennan, C., O'Brien, M.E., Bain, F.L., Miller, A.E., Snow, C.C., Salinas, V., Norman, R.S., Bojes, H.K., **Brooks, B.W.**

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Pharmaceuticals and Personal Care Products in the Environment: What Progress Has Been Made in Addressing the Big Research Questions? (2024) *Environmental Toxicology and Chemistry*, 43 (3), pp. 481-487. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184735854&doi=10.1002%2fetc.5827&partnerID=40&md5=76e19273376d512bf3b354aef4f674d3 DOI: 10.1002/etc.5827

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Towards Precision Ecotoxicology: Leveraging Evolutionary Conservation of Pharmaceutical and Personal Care Product Targets to Understand Adverse Outcomes Across Species and Life Stages (2024) *Environmental Toxicology and Chemistry*, 43 (3), pp. 526-536. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85175868249&doi=10.1002%

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Predicting the Accumulation of Ionizable Pharmaceuticals and Personal Care Products in Aquatic and Terrestrial Organisms (2024) *Environmental Toxicology and Chemistry*, 43 (3), pp. 502-512. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138703024&doi=10.1002%2fetc.5451&partnerID=40&md5=4317fe4d88f01f4a1fc55c56cc77ad1e DOI: 10.1002/etc.5451 DOCUMENT TYPE: Article

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