# OKChE Magazine

School of Sustainable Chemical, Biological and Materials Engineering



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Welcome from the Director, Prof. Dimitrios V. Papavassiliou

Dear Alumni and Friends,

I hope that you will share my excitement for the accomplishments of our students and faculty, as you read the latest news from our School. At SCBME we remain deeply invested in academic excellence and individual student success. Collaboration is the driving force behind our School's progress.

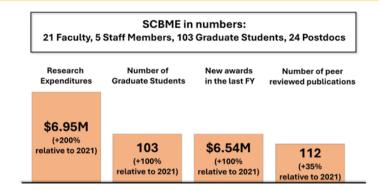
Our commitment to excellence is reflected in our statistics: a faculty roster of 21 members, maintaining a faculty-to-student ratio of 9.5:1, with 195 undergraduate students, 103 graduate students and 24 postdocs. During the last few months, SCBME faculty obtained funding from quite competitive sources, such as the National Science Foundation, the Department of Defense, the Department of Energy and the National Institutes of Health, as well as from the industry significantly enhancing our research impact.

(Welcome from the director continued...)

We work on developing cancer and virus therapeutics, new materials and new sources for energy production and storage, cleaner and more efficient separation processes, and we lead collaborations across the campus and the Nation. We are proud to be the first department in the country to add sustainability to our name, underscoring our commitment to sustainable solutions and renewable materials. In August, we welcomed the class of 2028, along with 30 new online MS students and 13 PhD students, in addition to Dr. Ahmad Al-Douri, our most recent faculty member. Dr. Al-Douri gained his MS and PhD degrees from Texas A&M University and joined OU after post-doctoral studies at the University of Maryland. His research is focused on process design, systems resilience and sustainability in the chemical industries. Our on-line MS program on "Sustainability: Energy and Materials Management" is expected to graduate its first students in May. Our new PhD program on Materials Science and Engineering and our new graduate and undergraduate certificates on Bioprocessing are underway, reflecting our dedication to staying at the forefront of our field and to providing state-of-the-art training to our students. As evidence of our progress, our chemical engineering program has ascended by 10 positions in the US News and World Report rankings for best ChE graduate schools. Looking ahead, we anticipate even more remarkable accomplishments as we continue to grow.

Thank You,
Dimitrios V. Papavassiliou
C.M. Sliepcevich Professor of Chemical Engineering
David L. Boren Professor and Director
School of Sustainable Chemical, Biological and Materials Engineering

#### **SCBME News**



• The SCBME research program continues to grow, while expanding its interests. Our newest Faculty, Dr. Ahmad Al Douri, brings new expertise in process safety and optimization.





 A research team led by SCBME faculty John Klier (Dean of the Gallogly College of Engineering) and Brian Grady received a \$4.8M grant from the Oklahoma City Air Logistics Complex at Tinker Air Force Base to create a primer ree of chromium containing

materials to protect U.S. military aerospace equipment from corrosion.



On November 15-16th, 2024, SCBME hosted the Symposium "Advanced Materials for the Future of the Oklahoma Economy: Challenges and Opportunities", which brought together experts from ETH, LLNL,USC, UCSD, NCSU, Minnesota, Penn State, OU, Citrine Informatics, Blue Whale Materials, Westwin Elements, and Membrane Specialists to explore transformative advances in material science across key sectors, 4such as healthcare, aerospace and

energy, and the role of Artificial Intelligence on materials discovery. We also hosted a poster session, with over 50 contributions from students and postdocs, highlighting sustainability research across the OU Campus.





 Success for our online MS in Sustainability! Since its debut in fall 2023, enrollment has steadily increased. The first cohort of students is expected to graduate in the spring of 2025. Students came from different backgrounds, including STEM, humanities and arts. <a href="https://www.ou.edu/coe/scbme/academics/sustainability">https://www.ou.edu/coe/scbme/academics/sustainability</a>



• The 2nd Annual SCBME Tailgate was a fantastic way to kick off the new academic year, bringing together graduate and undergraduate students, faculty, and staff for a relaxed and enjoyable welcome-back gathering. The event provided an opportunity for everyone to reconnect, share stories about their summer adventures, and celebrate the upcoming year. Thanks to the generous support from the Norman area business community there was tons of food and raffle prizes. This collaborative effort highlighted the community's enthusiasm for supporting our students and set the stage for a successful year!

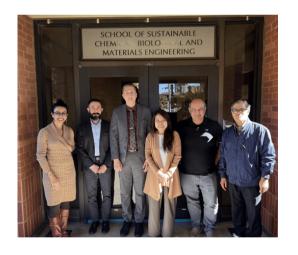
#### **Post-Doctoral and Student News**



Success for UG researchers in the Razavi's
 Lab! Jazmine Whitfield was named a McNair
 Scholar, and Gabe Overholt was granted the
 Provost's Undergraduate Research and
 Creative Activity (UReCA) summer fellowship.



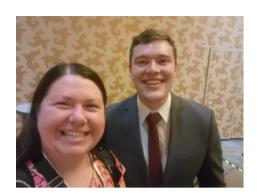
 Two SCBME undergraduate students working in the Galizia Research Group, Harold Ly and Keen Nguyen received the Donald F. Othmer Academic Excellence Award and the First Year Student Recognition Award, respectively. The award ceremony took place at the National AIChE 2024 Conference in San Diego.



 Matthew Webb, a PhD student in the Galizia Group, received the Dibakar Bhattacharyya Award from the AIChE Separation Division, which recognizes exceptional accomplishments from graduate researchers in membrane science. Matthew successfully defended his PhD in November of 2024. Congratulations Dr. Webb!



 Mostafa Seyed Tabatabaei and Sarah Onyembe, two SCBME Graduate Students working with Prof. Reza Foudazi, receive poster awards at the SWRM local ACS (American Chemical Society) conference in Waco(TX).Pictured here, Mostafa and Sarah with the other winners and Prof. Foudazi. Congratulations, Mostafa and Sarah!



 Success for the SCBME's reception at AIChE 2024. We thank friends and alumni who stopped by. Pictured here, our alumna, Prof. Ashlee Ford-Versypt, and our current PhD student and former UG in the Ford-Versypt Lab, Blake Bartlett, attending our reception.

#### Staff and Alumni



 Meet Mrs. Stacy Smith, our Online Graduate Student Program Coordinator

Stacy Smith has been a member of the OU community since 2001. She has spent many years in student services and programming in Student Affairs and the College of Arts and Sciences. In 2024 she joined the Gallogly College of Engineering as the Lead Student Program Coordinator for two OU Online programs; Sustainability: Energy and Materials Management and Industrial and Systems Engineering. As an undergraduate, she was a member of the

online advisory board when non-traditional learning was in its infancy here at OU and helped lay the foundation for what online learning is today. When Stacy was earning her Masters, she continued to shape the alternative learning environment and contributed to the Weekend Program (housed in what is now PACS) that is primarily geared for working adult learners and military students. She is an alum of the Pride of Oklahoma and is active in community and church music programs. She and her husband have two daughters, a zoo of animals at home (cats, dogs, lizards, and ferrets) and she has a healthy respect for anyone that has survived raising teenagers. She is excited to positively contribute to her programs and the college and wants to thank everyone for the warm welcome!



 Prof. Bernie Van Wie, SCBME alumnus, has been honored with the Donald R. Woods Lectureship Award from the American Society for Engineering Education (ASEE). Prof. Van Wie was a PhD student, and then a post-doctoral researcher with Profs. Sam Sofer and Ken Starling in the former OU School of Chemical Engineering and Material Science, now SCBME. He is currently a Professor of Chemical Engineering at Washington State University.



 Meet Prof. Jimmy Faria, SCBME Alumnus and currently Chemical Engineering Professor at the University of Twente

Prof. Jimmy Faria Albanese, who received his PhD at SCBME under Prof. Daniel Resasco, has rapidly ascended the academic ladder to become a successful Full Professor at the University of Twente in the Netherlands. "During his PhD, Jimmy showcased his creativity, intelligence, and work

ethic", Prof. Resasco says. "He showed his leadership by prioritizing safety, mentoring new students, and fostering the culture of scientific rigor. Jimmy's charming personality and effective communication skills impressed peers and mentors".

Following his graduation from OU, Jimmy and his wife, Pilar, also a valuable member of the Resasco's Group, spent five productive years in R&D in Spain, where he impressively climbed from Senior Researcher to Program Manager and Group Leader. Seven years ago, he transitioned into academia, where he now employs physical-chemistry and chemical engineering methods to explore complex multi-phasic reaction systems and innovate synthetic catalytic materials aimed at sustainable production. "In a short time, Jimmy has emerged as a rising star in Europe's catalysis field, publishing significant research in top-tier journals and securing grants from highly competitive agencies", Resasco says. Jimmy's work embodies the core SCBME values: nurturing human capital and creating conditions for all students to succeed and seat among the leaders in their field.

## **New Academic Programs in SCBME**



The new undergraduate certificate on Bioprocessing accepted its first students in Fall 2024. Undergraduate students across campus can enroll to gain hands-on experience for jobs in the biopharmaceutical industry with specialization in biologics – pharmaceuticals produced by living cells instead of chemical synthesis in a lab. See: <a href="https://www.ou.edu/coe/scbme/academics/bioprocessing-certificate-program">https://www.ou.edu/coe/scbme/academics/bioprocessing-certificate-program</a>



• The on-lineMS program in Sustainability: Energy and Materials Management has been underway with over 50 students enrolled on-linein Spring 2025. The first graduates will be receiving their degrees in May 2025.

See: https://www.ou.edu/online/programs/graduate/sustainability

### **Connect With Us!**





• <a href="https://www.ou.edu/coe/scbme/connect-and-give">https://www.ou.edu/coe/scbme/connect-and-give</a>