



Department of Chemical and Biological Engineering

NEWSLETTER

Fall 2023



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Welcome

Dear Alumni and Friends,

I am extremely excited to share some updates and highlights from the ChBE department over the last year. It has been a very busy year with a lot of campus events, student awards, research activities, faculty searches, and much more! Our national prominence continues to rise, and the impact of our department continues to spread around the globe.

This has been a special year for our ChBE department, as we hosted two major research conferences during the spring semester, drawing a wide range of visitors to Tuscaloosa and to our spectacular UA campus. These conferences provided many leadership opportunities for our students, they provided excellent networking opportunities, and most of all, they allowed us to showcase our own student and faculty research to the rest of the world!



*Prof. C. Heath Turner
Department Head*

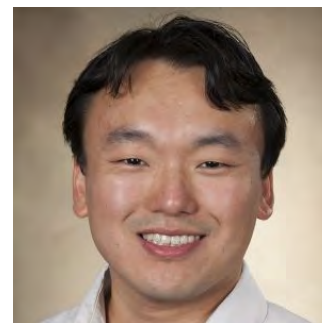
THE UNIVERSITY OF
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College of
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Undergraduate News

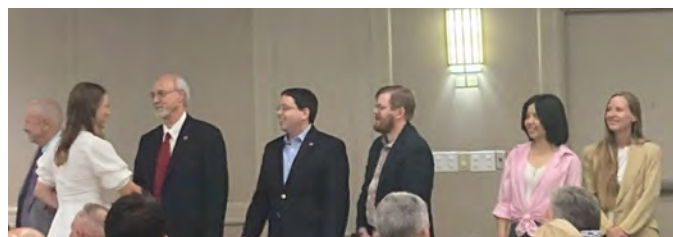
This year, we conferred 101 B.S. degrees, making us one of the top producers of chemical engineers in the nation! We also continue to be a leader in international education, including undergraduate courses in Denmark and Ireland, as well as hands-on research experiences in Spain. This year, we also established a new tradition – the Order of the Engineer initiation ceremony for our chemical engineering graduates.



Prof. Y. John Kim, Undergraduate Program Coordinator

Order of the Engineer

The Order of the Engineer was initiated in the United States to foster a spirit of pride and responsibility in the engineering profession, to bridge the gap between training and experience, and to present to the public a visible symbol identifying the engineer. The College of Engineering established a chapter and held its first ceremony for engineering and computer science graduates in May 2023, followed by each inductee being congratulated by the ChBE departmental faculty.



Unit Operations Lab in Denmark

This year, we took 18 students to the Technical University of Denmark. The course includes six pilot-scale laboratory experiments, as well as a cultural presentation. Although several other U.S. universities also participated in this program, our UA students won three out of the top four presentation awards!



Chemical Engineering in Ireland

This past summer, we re-established our summer program in Ireland! Students picked two (of three) different courses to take from Profs. Kim and O'Harra, and on the weekends, everyone joined cultural tours and excursions around the beautiful Irish countryside.

Summer Research Experience in Spain

For the second consecutive summer, a select group of eight students traveled to San Sebastián, Spain to participate in hands-on research projects involving polymer synthesis and characterization at the Basque Center for Macromolecular Design and Engineering.





Graduate Program Updates

Our graduate program continues to thrive! Our Ph.D. student enrollment has been continually increasing for the past seven years, resulting in another new record this year. In addition, we have been developing more networking, professional development, and leadership opportunities for our students. It has never been a better time to be a ChBE graduate student at UA!

Prof. Yuping Bao, Graduate Program Coordinator



ChBE Graduate Student Committee

Our ChBE Graduate Student Committee (GSC) has become one of the most vibrant groups within our department! This year, they led several key events, including the spring Graduate Student Symposium, an International Food Festival, and monthly Meet-Your-Neighbor Lunches. Recently, the GSC also began publishing a Graduate Student Newsletter every semester. It includes updates and tips about health and safety information, summer activities, new student awards, and other relevant news for our graduate students. In order to help curate this information and enhance communication among our students, the GSC also built a comprehensive SharePoint site.

The GSC officers this past year were Alexandra Avera (president), Sandhiya Thiagarajan (vice president), Joseph Danner (treasurer), Lauren Ward (secretary), Jasneet Pala (social media manager), Creighton Baltier (communications manager), and Alex Minne (safety chair). We are grateful for the leadership of the GSC, and we are excited about the year ahead!



Graduate Seminar Series

Every semester, the ChBE department invites top researchers from around the country to deliver a research seminar to our faculty and graduate students. This year, we significantly increased the number of visitors, with a total of 24 on-campus seminar presentations. In addition, we invited Prof. Chris Jones from Georgia Tech (pictured) as one of the featured speakers in the College of Engineering Eminent Scholars and Leaders Series.



Honors and Awards

Our ChBE students and faculty continue to win local, national, and international recognition for their accomplishments. Every spring, we hold our Annual Awards Ceremony to celebrate these individuals and honor their commitment to excellence!

Prof. Christopher Brazel, Honors Program Coordinator



Undergraduate Students

American Institute of Chemists Senior Award: Lucas Podlesney

AICHe H.F. Johnston Jr. Memorial Senior Award: Shane Vaara

Central Alabama Section of AICHe Outstanding Senior (Chilton) Award: Kayla Lafferty

Central Alabama Section of AICHe Outstanding Junior (Chilton) Award: Sofia Luna

AICHe Donald F. Othmer Sophomore Academic Excellence Award: Paige Lonergan

The Alexander Stanton Memorial Undergraduate Research Award: Elizabeth Collinson, Lauren Sullivan

ChBE Outstanding Seniors: Jensen Baade, Jarod Beights, Courtney Calloway, Jarret Harrison, Tanner Hearing, Antonio Petrucci, Cade Watkins, Alex Wilkins

ChBE Outstanding Juniors: Jonathan Blanks, Ian Brown, Lela Connors, Ellie DeGroot, McKinley Hoffman, Reid Lunsford, Carson Moritz, Max Moussad, Carlos Reynoso, Kevin Wise

ChBE Outstanding Sophomores: Kyra Berger, Gabriella Motley, Liam Papier, Carter Reynolds, Katia Watkins

AICHe Outstanding Member: Mike Rand

Omega Chi Epsilon Outstanding Member: Rachel Lane

Capstone Engineering Society Outstanding Senior: Gina Lusvardi

ECOB Outstanding Senior: David Barrett

ChBE Honors Graduates: Juliana Bates, Jayna Enguita

Graduate Students

American Institute of Chemists Graduate Award: Ali Al Shaikh

American Institute of Chemists Postdoctoral Researcher Award: Gabriel Barbosa

ChBE Outstanding Graduate Student Teaching Assistants: Alexandra Avera, Shubham Pandey

Outstanding Graduate Student Service to the ChBE Department: Alexandra Avera, Ian Brown

ChBE Outstanding Graduate Students: Meredith Mock, Ademola Soyemi, Sandhiya Thiagarajan

3-Minute Thesis Awardees: Jasneet Pala, Lucas Prestianni, Ethan Iaia

ChBE Graduate Research Symposium Awards: Shahriar Habib, Lauran Ward, Anh Hoang

ECOB Outstanding Graduate Student: Raghu Kondapaneni

Faculty/Staff

ChBE Outstanding Staff Member: Genice Reedy

ChBE Outstanding Research Impact Awards: Steven Weinman, John Kim

ChBE Outstanding Teaching Impact Award: Jason Bara

AICHe Outstanding Faculty: Steven Weinman

Omega Chi Epsilon Outstanding Faculty: Ryan Summers

Connors Wins National AICHe Award



This year, **Lela Connors**, a ChBE undergraduate student and mathematics double major, won the national Donald F. & Mildred Topp Othmer Scholarship from AICHe (among 15 winners in the nation). Lela is also the Vice President of the Ambassadors for the College of Engineering, an undergraduate research assistant, and a member of the Lady Tide Club Soccer Team. This award includes a \$1,000 scholarship and is presented on the basis of academic achievement and involvement in AICHe student chapter activities.



Faculty & Research Highlights



North American Membrane Society (NAMS) Annual Meeting at UA

This year, the 32nd Annual NAMS Meeting was held in Tuscaloosa, AL, and it was a huge success! The meeting was co-chaired by **Profs. Esfahani, Weinman, and Bara**, and the theme was “A New Era of Sustainable Membrane Innovation.” This year's meeting was both an exciting and informative event, with 125 posters, 170 talks, and over 300 attendees. NAMS is the only professional society in North America that promotes all aspects of membrane science and technology, ranging from fundamental studies of material science to process application and development.

Southeastern Catalysis Society (SECS) 2023 Annual Symposium at UA



This past spring, **Profs. Harris and Szilvási** co-chaired the SECS Annual Symposium at UA. A wide range of catalysis researchers and practitioners participated in this highly-interactive event. The SECS is the local chapter of the North American Catalysis Society (a member of the International Catalysis Congress).

Prof. Kim Wins National Service Award



Prof. John Kim has been awarded the James M. Van Lanen Distinguished Service Award from the national American Chemical Society BIOT Division for his impressive contributions to the field of biochemical technology.

Prof. Rao Elected to National Leadership Post



Prof. Shreyas Rao has been elected as the Vice Chair for the AIChE Food, Pharmaceutical & Bioengineering Division. AIChE is the world's leading organization for chemical engineers, with more than 60,000 members from more than 110 countries.

Prof. Weinman Joins Editorial Boards



Prof. Steven Weinman has recently assumed two prestigious editorial positions: *Journal of Membrane Science* Early Career Editorial Board and *Separation and Purification Technology* Early Career Editorial Board.

Prof. Sheehan Joins Editorial Board



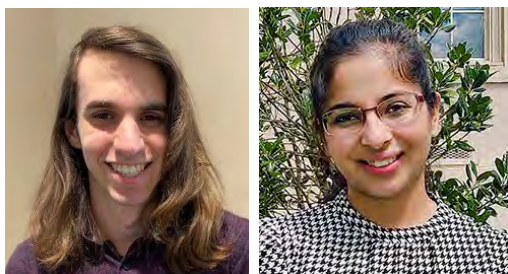
Prof. James Sheehan has recently been selected (among hundreds of applicants) to join the Early Career Board of the American Chemical Society journal *ACS Sustainable Chemistry & Engineering*.



Student Spotlights

Avera Wins Most Outstanding UA Graduate Student

Each year, two outstanding graduate students who have made extraordinary contributions to The University of Alabama and the community through their academic and extracurricular activities are named Outstanding Graduate Students. Our own **Alexandra (Alex) Avera** was recognized with this award this year. She has an established history of service to UA and Tuscaloosa by providing mentorship and leadership towards individuals with disabilities and underrepresented minorities. She has served as a peer mentor through UA's Tide Together and UA's Autism College Transition programs, a volunteer at DCH Regional Hospital, and co-founder/director of a volunteer program at DCH for adults with disabilities. In 2021, Alexandra helped pioneer ChBE's Graduate Student Council (GSC), and she currently serves as the GSC President. She is deeply rooted in her Filipino-military cultural background and highly motivated by her family to continue mentoring future generations.

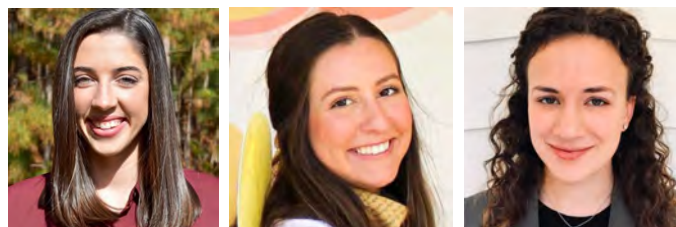


Two ChBE Students Progress to UA Three-Minute Thesis Finals

The Three Minute Thesis (3MT®) is a research communication competition which challenges graduate students to present their research and its significance in just three minutes in language appropriate to a non-specialist audience. This year, two ChBE students, **Lucas Prestianni** and **Jasneet Pala** (L-R) made it to the UA finals!

ChBE Students Win Big at UA Undergraduate Research and Creative Activity Conference

This year, our ChBE research students made a *clean sweep* at the UA Undergraduate Research and Creative Activity Conference (L-R): **Alex Wilkins** (1st place) for her work on reverse osmosis membranes; **Brooke Monti** (2nd place) for her research on desalination; and **Isabella Concannon** (3rd place) for her research on organoids.



Three ChBE Students Win UA Randall Research Awards

Three ChBE research students, **Jules Bates**, **Yifei Sun**, and **Alex Wilkins** (L-R) were recently recognized with Randall Outstanding Undergraduate Research Awards for conducting significant scholarly research. These recipients were selected by a distinguished panel of UA research faculty and past recipients of the Burnum Distinguished Faculty Award.





Alumni News

New ChBE Departmental Fellows

Department Fellow is the highest recognition provided by our department. It is intended to recognize people who have provided substantial service to our department, achieved significant career success within their profession, and/or demonstrated exceptional leadership to further the mission of The University of Alabama. This year, two individuals were recognized with this distinct honor.

- **Shane Wright** (Hexcel, VP - Fibers Operations and Capital Projects)
- **Dr. Gary April** (ChBE Professor Emeritus)



Lammers Recognized as Distinguished Engineering Fellow

Each year, the College of Engineering inducts a select group of Distinguished Engineering Fellows, which is its highest commendation. This year, **Paul Lammers** (B.S. CHE '85) was inducted into this select group of individuals. From 1985 to 2021, Lammers led project management initiatives for over 30 different companies. Additionally, he served as the chief operating officer and chief engineer of OSDV, a specialty engineering consulting company, from 2018 to 2019. In 2021, Lammers joined W.R. Grace & Co. He serves as a senior project manager for the company and as the portfolio manager for the Northern region of the Americas. Throughout his nearly four-decade-long career, Lammers has managed over \$4 billion worth of projects around the globe.



Davis Inducted into State of Alabama Engineering Hall of Fame

This year, **Milton Davis, Jr** (B.S. CHE '81) was inducted into the prestigious Alabama Engineering Hall of Fame. His service to engineering education and the state includes several boards and leadership positions (Chairman of the Alabama Community College System Board of Trustees, Chair of the Capstone Engineering Society, and Co-chair of the Economic Development Committee of Manufacture Alabama). He is a founding partner and sponsor of the NSBE Summer Engineering Experience for Kids (SEEK Program) in Birmingham. Davis joined Clayco as vice president of economic development in 2022 after nearly 10 years as director of industrial business development for B.L. Harbert International.





Contact and Support

While our department has been through many changes over the years (increased enrollment, new faculty, and renovated facilities), we are most proud of the alumni who pass through our program! If it has been a while since you have been to campus, we would love to reconnect and hear from you. Whether you want to take a tour of the unit operations lab or catch up with an old teacher, our door is always open!



*Our past chemical engineering graduates regularly return to campus to share career advice with our graduating seniors, deliver guest lectures in our senior design classes, or find ways to financially contribute. If you have a desire to give back, we would love to talk with you. Financial contributions to the department can be made payable to the **Chemical Engineering Discretionary Fund** and sent to the mailing address below.*

*Roll Tide!
Heath Turner*



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