



The UNIVERSITY of OKLAHOMA

School of Chemical, Biological
and Materials Engineering



Director's Letter

Summer 2015

Welcome to OKCHE magazine. Some of you “old-timers” may remember that OKCHE magazine was a regular publication of the Chemical, Biological and Materials Engineering Department at the University of Oklahoma. We stopped for a while (OK, for a long while) but as the new director, I felt that having a magazine, both in electronic and hard copy format, was a good way for us to communicate with you, our alumni. We are not sending hard copies to everyone, so if you are not getting a hard copy and would like one, please contact Melyssa Smith at melyssa.smith@ou.edu or give her a call at (405) 325-5811 and we can have one sent. Our plan is to publish once a year in late summer/early fall. Also, please join our Facebook page; probably the easiest way to do that is to go to cbme.ou.edu, go to the bottom of the page and click the Facebook link.

In terms of news, I will concern myself only with news that occurred during the last year. First, as you have probably figured out, after 16 years as director, Lance Lobban stepped down, and I replaced him in August 2014. We welcomed two new faculty members, Bin Wang and Paul Huang, in fall 2014 (profiles will appear next summer). We remodeled one of our two undergraduate team rooms; a story about the family that made that possible, John and Lou Waller, appears in this issue. We also completed construction of a graduate student lounge; stories about the Genetti family and Dye family who together made this lounge possible also appear in this issue. Under very unfortunate circumstances, one of our CBME undergraduates, Isaac Hill, appeared on a variety of national news programs as he is president of the Black Student Association here at OU. He really did an excellent job; search for videos of him speaking, and I think you will be very impressed. Finally, in spring 2015, we were the beneficiaries of a \$1 million gift from that Gallogly family that will enable us to redo the Unit Operations lab as part of a much larger gift to rename the College of Engineering as the Gallogly College of Engineering. In addition, a new school was announced: the School of Biomedical Engineering. Dan Resasco was inducted into the National Academy of Inventors. Ulli Nollert was honored with the prestigious Brandon H. Griffith award in recognition of his excellence in teaching and extraordinary student support at the annual E-Week Banquet at the University of Oklahoma. I am also proud to announce that we have more Chemical Engineering undergraduate majors now than at any time in our history (nearly 600). More news can be found on our Facebook page (and lots of other stuff, including how our staff rescued stranded ducks).

As always, feel free at any time to drop me a line at bpgrady@ou.edu or (405) 325-4369. Even better, stop by and I would be happy to give you a tour. A card appears in this magazine for donations; any amount would be entirely welcome. Thank you again for all that you do in support of our school.

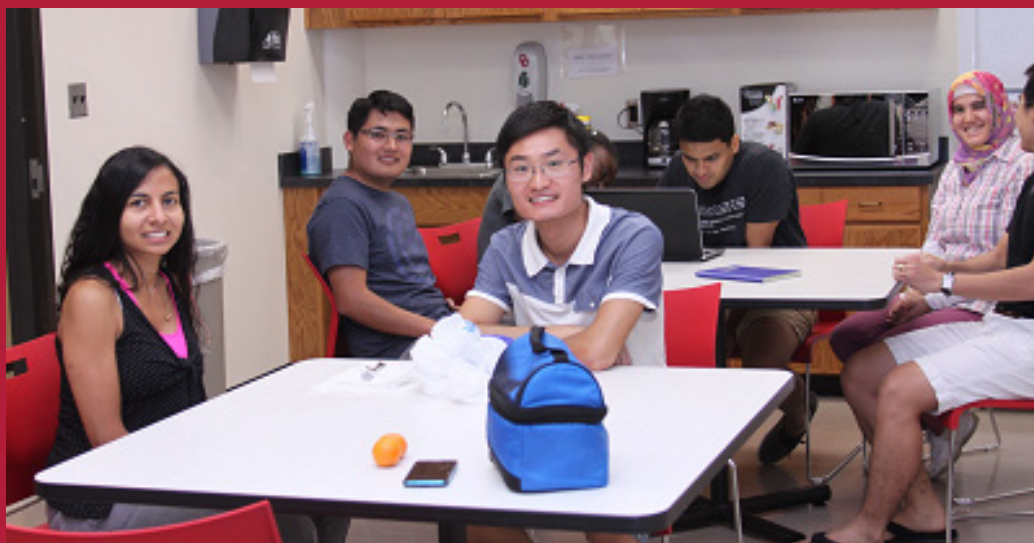


Graduate Student Lounge - Dr. Berlin Genetti

W. Berlin Genetti, who earned his doctoral degree in chemical engineering from OU in 1998, wanted to give back to his alma mater, and OU chemical, biological and materials science students are reaping the benefits. Thanks to a generous gift from the Genetti family, along with a gift from the Dye family (see related story), CBME graduate students now have a homey, dedicated lounge area where it is hoped they will develop scientific collaborations leading to higher-quality research. Further, ExxonMobil, Genetti's employer, is matching his generous gift.

Son of a chemical engineer who was a professor and chair at the University of Mississippi, Genetti was able to learn a great deal about science. His father specialized in heat transfer and worked on projects dealing with capturing energy from solar panels. This, coupled with his own love of everything from Lincoln logs, Legos, and electronic sets through bringing to life an old vehicle, served as the solid basis for his current responsibilities at ExxonMobil. Regarding the last, Grady, his Ph.D. adviser, still remembers the time that Berlin and he replaced the starter motor on Grady's rather old Chevy Cavalier!

Genetti had a well-rounded education that led to his current position with Exxon-Mobil. He graduated from Ole Miss with a bachelor of science degree in chemical engineering. He worked as a co-op student at Vista Polymers in Aberdeen, Mississippi during his undergraduate year, and his experience at Vista was his first exposure to the manufacturing environment. This experience also introduced him to polymerization reactions and PVC compounding. After graduation from Ole Miss, he attended graduate school at OU from 1994-1998 working in the area of electrically conducting polymer composites; Genetti was Grady's first PhD graduate. He has been working at ExxonMobil since his graduation in 1998.





Graduate Student Lounge - Robert Dye

Robert Dye is an OU alumnus graduating in 1977 with a BS in Chemical Engineering as well as earning an MBA in Business from Stanford. Dye has had a diverse but very productive work history. After graduating from the University of Oklahoma's Chemical Engineering program he spent eight years working in petroleum engineering first at Phillips and later at Texas Eastern Exploration. The rest of his career was spent at the Apache Corp. after he went back to school for a business degree at Stanford. Although his responsibilities were not directly related to chemical engineering his work was of great importance in the running and success of Apache. He served as director of planning and budgeting for 4 years and was primarily responsible for forecasting the company's earnings, monitoring capital plans, and project economics. He then was named vice president of investor relations. In that position, which he held for 12 years, he was the primary liaison with the Wall Street portfolio managers and analysts providing operating and financial guidance and context, and regularly spoke at large investment conferences. He was then named vice president of corporate services. During his two years in that capacity, Dye managed Apache's IT, corporate land administration, government affairs, and public affairs groups. During his last three years at Apache, he served as senior vice president of global communications, where he was responsible for communication and government affairs post-Macondo when the industry faced greatly elevated scrutiny.

Having excelled in chemistry, math, and science in high school, Dye felt that chemical engineering would be a good fit for him. In addition, several family friends were chemical engineers giving him great insight into what the field involved. During fall of his senior year of high school in Houston, Dye recalls somehow ending up in the OU room with Paul Massad, who was the director of college recruiting at the time. Not many of his fellow Houston students attended OU, so he was the only student listening to the presentation; however, after only an hour he emerged a Sooner.

Robert has been happily married to his wife, Cindy, for 31 years, and they have three children. Steven attended Notre Dame and lives in Chicago. Jenny, who also attended OU as an accounting major, works for Phillips 66 in Houston. Jamie currently is studying mechanical engineering at the University of Houston. Since retiring, Dye has enjoyed tennis, golf, and volunteering at their local food bank.



M206 Remodel - John Waller

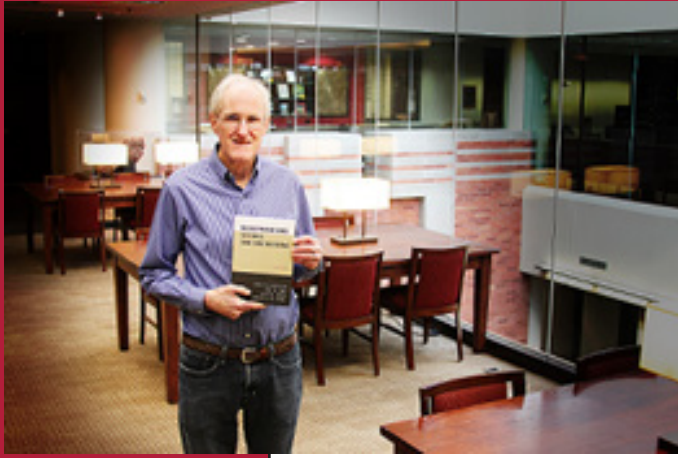
John and Lou Waller are longtime generous benefactors to the school of chemical, biological and materials engineering. Many of you will remember M-206, the Senior Team room, which was originally made possible through the generosity of John and Lou. After 20 years of heavy use, M-206 was showing its age, so the Wallers made a second donation in support of that room, which has been refurbished with new furniture and new A/V equipment. Additionally, the room has been totally redesigned to accommodate laptop computers.

After graduating from OU with a bachelor of science degree in chemical engineering and an MBA in 1961 and 1971, respectively, John enjoyed a long and distinguished career that included ownership of Toefco Engineering in Michigan, an industrial coatings company. After retiring to Norman in 1996, John spent a significant amount of his time in the late 1990s and early 2000s visiting campus and interacting with CBME students. He advised students about life at OU and after graduation and coached students on job interview techniques. He still speaks to student groups on topics ranging from teamwork to techniques for writing reports. John has always been a generous person, both with his time and finances.

This spring John was honored with a Regents' Alumni Award. Interestingly, it was not presented for his work in Chemical Engineering primarily, but rather for his advocacy of the arts at OU. A generous advocate for the Weitzenhoffer Family College of Fine Arts, Waller has supported the renovation of historic Holmberg Hall and the establishment of the Ballets Russes Archives in the School of Dance. Additionally, the Wallers are founding members of Dance Partners, the School of Dance donor support group. Finally, John has served as a member of the Pride Alumni Board and is a current member of the Musical Theatre/Opera Guild Board. He chaired the highly successful Pride of Oklahoma's Centennial Reunion, where Pride alumni joined active members during a special reunion halftime show.

We at CBME thank John and Lou very much for their generous contributions!





Roger Harrison publishes new edition of Bioseparations Science and Engineering

The demand for highly purified biological products for commercial and consumer use has increased significantly over the past decade, leaving a widening gap between the application and engineers trained in the process. To respond to the growing need to separate and purify these bioproducts, Roger Harrison, CBME professor, has released a revised edition of the book *Bioseparations Science and Engineering*, along with co-authors Paul Todd, Scott Rudge and Demetri Petrides.

New to the second edition are updated descriptions of the important chromatography separation method, which is required for the purification of bioproducts that must be injected into the bloodstream. As in the first edition, the various operations in bioseparation processes are explained by first developing the scientific basis and mathematical theory and then describing the applications of the theory in engineering practice with an emphasis on design and scale-up. Aimed at students and industry practitioners, the book also includes updated cost information and expansion of the chapter on bioprocess design for the integration of various bioseparation operations to develop economically optimal processes.

More than 60 universities worldwide teach courses using the “*Bioseparations Science and Engineering*” textbook, a powerful testament to the growing necessity of biotechnology development and implementation throughout the world.

“As the world relies more on the development of new biotechnology products in the pharmaceutical, agricultural and specialty chemical industries, science and engineering will depend on efficient bioseparation processes to meet the demand,” Harrison said. “This revised edition addresses today’s growing need to educate a new generation of scientists and engineers requiring up-to-date capabilities for developing new bioseparations processes.”

CBME Student Awards – April 29, 2015

Outstanding Teaching Assistant - \$250 – Adam Avoian

2015 Capstone

3rd Place - \$25.00 to each group member:

Analytical Device for Volatile Disease Markers – Dr. O’Rear

Group C – Jael Babb, Eric Sarani, Talib Chaudhry, Aaron Simmons

2nd Place - \$50.00 to each group member:

Upgrading of Biomass Torrefaction Vapors to Transportation Fuels – Dr. Crossley

Group A – Sylvia Chavana, Chad Hughes, Meredith Lewis, Crystal Tomdio

1st Place - \$100.00 to each group member:

Alternate Technologies for Sour Water Stripping – Dr. Lobban

Group B - Emily Dattore, Diana Kelso, William Moon, Kyle Wardwell

Outstanding Sophomore: \$250 – Rachel Wittenbach

Outstanding Junior - \$250: Bryce Hermsen

Outstanding Senior - \$250: Meredith Lewis

Outstanding Junior Researcher: \$250 – Madison Bower

Outstanding Senior Researcher: \$250 – Aaron Simmons

Outstanding Leadership Award: \$250 – Carl Szmuto

Pamela Pesek Johnson Award for the Outstanding Senior in Design: \$250

Sylvia Chavana

F. Mark Townsend Scholarship: \$1,000 – Melissa Narum

Freda Meyer Guild Outstanding Female in CBME: \$1,500 – Jennifer Carmichael

CBME Graduating Class 2015



OKChE Advisory Board

Kenneth Applegate 1979
 Randall Couch 1975
 Robert Dye 1977
 Larry Evans Ph.D. 1956
 Spencer Knapp 1962
 E. Keith Mitchell 1984 Chair
 Dirk Perrin 1997
 Kyle Pearson 1983
 Robert S. Purgason 1978
 Steve Raybourn 1978
 Lisa Rogers 2002
 Pamela Tucker Ph.D. 1983
 John Waller 1961
 Brian P Grady Ph.D.
 Richard G Askew 1947 Deceased

Laurinda Crow 1985 Deceased
 Haley Finkelman 1993
 Bruce A. Finlayson Ph.D.
 William L. George 1964
 Don W. Green Ph.D. 1959
 Verne E. Griffith, Jr. 1962
 Richard A. Hall 1963
 Michael P. Harold Ph.D.
 J. D. Holbird 1972
 Edward D. Holstein
 David C. Kendrick Ph.D., MD,
 MPH 1999
 Gary A. Kilpatrick 1966
 Omer Kircher Ph.D. 1951

David P. Kurtz
 Michael E. Lee 1985
 Lisa Lyhane 1985
 Bruce R. Palmer Ph.D.
 Barry W. Penney 1987
 Charles R. Perry 1983
 Charles R. Perry 1983
 Omer Pipkin Ph.D. 1950
 C. Thomas Science Ph.D.
 Mary S. Van Domelen P.E. 1982
 Samuel A. Wilson 1953

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Inquiries regarding non-discrimination policies may be directed to: Bobby J. Mason, University Equal Opportunity Officer and Title IX Coordinator, 405-325-3546, bjm@ou.edu, or visit <http://www.ou.edu/eoo.html>.

GALLOGLY COLLEGE OF ENGINEERING CHEMICAL, BIOLOGICAL & MATERIALS ENGINEERING

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