Dear Alumni,

It has been a busy year for the department. Our undergraduate enrollment is burgeoning and for the third year in a row we will have more than 100 sophomores entering our program. In 2007-2008, for the first time ever, we had to schedule three sections of our Mass and Energy Balances courses (CBE 200 and 201). As a result of our popularity this year our Unit Operations lab, with more than 70 students enrolled, ran out of hard hats. (We solved that problem in a hurry.) Next summer we may have to run two sections of the Unit Operations laboratory.

So far our faculty and staff have things under control. In the long run we expect enrollments to cycle and we will be affected by the new bachelor’s degree to be offered in Biomedical Engineering. Thus a looming enrollment crisis may be mediated by a number of happenings that are a bit beyond our control. Our vision as a department is to grow somewhat in size as we anticipate a 21st century growth in the profession of Chemical Engineering. We need to address the reality that we have been an undersized department for many years. Our plans for growth include being housed in a somewhat larger new Koffolt Laboratories that should come on line in 2014. Please see some details on the current concept for this building, which will be combined with new space for the Chemistry Department, elsewhere in this newsletter. A major alumni fund raising campaign for the building is beginning right now.

This has been a good year for recognition of our students and faculty as you will see in an extensive awards section in this newsletter. We are particularly proud of the campus and national recognition that our undergraduates have received. At the graduate level, which is not usually emphasized in this newsletter, for the third year in a row our faculty will have expended more than $10M on their research activities (according to our Research Foundation’s data base). This year we will have
more than $12M in research expenditures, or on a per faculty basis, more than $700,000 per individual. There are very few departments in the country that have that level of research intensity. Our faculty’s success is due in part to the interdisciplinary activities that abound in the department with our faculty cooperating not only with each other but also with colleagues in the College of Engineering, and with our Medical School and the College of Mathematical and Physical Sciences. This research success also benefits our undergraduates. We have always had a good number of students involved in undergraduate research in our department and their numbers are growing.

Best wishes to everyone, please keep in contact with us and Go-Buckeyes.

Stuart

This year’s Unit Ops class, with more than 70 students enrolled, temporarily “ran out of hard hats.”
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- Jeffrey Chalmers 292-2727
- L.S. Fan 688-3262
- Martin Feinberg 688-4883
- Winston Ho 292-9970
- Kurt Koelling 292-2256
- Isamu Kusaka 688-8302
- James Lee 292-2408
- Umit Ozkan 292-6623
- Andre Palmer 292-6033
- Michael Paulaitis 247-8847
- James Rathman 292-3760
- David Tomasko 292-4249
- Jessica Winter 247-7668
- Barbara Wyslouzil 688-3583
- S.T. Yang 292-6611

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- Robert Brodkey 292-2609
- Ed Haering (419)798-4619
- Harry Hershey 292-6610
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- Tom Sweeney 436-9099
- Jack Zakin 688-4113

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- Angela Bennett 292-9076
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- Mike Davis 292-6928
- Stacy Doepker 292-9599
- Brian Endres 292-6986
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- Paul Green 292-2718
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- Geoffrey Hulse 292-3589
- Dave Jones 271-6718
- Martha Leming 688-5640
- Prem Kumar 292-5120
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Photography and page layout by Geoffrey Hulse
2008 LOWRIE LECTURER

Professor Carol K. Hall is the Camille Dreyfus Distinguished University Professor of Chemical and Biomolecular Engineering at North Carolina State University. She received her B.A. in Physics from Cornell University and her Ph.D. in Physics from the State University of New York at Stony Brook. After postdoctoral training in the Chemistry Department at Cornell and a brief period as an Economic Modeler at Bell Laboratories, she joined the Chemical Engineering Department at Princeton University in 1977 as one of the first women to be appointed to a Chemical Engineering faculty in the U.S. In 1985 she joined the Chemical Engineering Department at North Carolina State University.

Hall’s research focuses on applying statistical thermodynamics and molecular-level computer simulation to topics of chemical, biological or engineering interest involving macromolecules or complex fluids. She is the author of over 190 publications, is a Fellow of the American Physical Society and was elected to the National Academy of Engineering in 2005.

Lecture I: Thermodynamic and Kinetic Origins of Alzheimer's and Related Diseases: a Chemical Engineer's Perspective

The pathological hallmark of more than twenty neurodegenerative diseases, like Alzheimer's, Parkinson's and the prion diseases, is the presence within the brain of plaques containing ordered protein aggregates called fibrils. It is not yet known why these structures form in some individuals and not in others, or whether the plaques are toxic or Nature's way of sequestering toxic species. Dr. Hall described current thinking on the scientific underpinnings for this phenomenon, and her computational efforts to contribute to our knowledge of how and why proteins assemble into fibrils.

Lecture II: Confessions of an Ordinary Teacher --- Dealing with the Big Fish

Professor Hall described the evolution of her attitude toward undergraduate teaching and its parallels with her attitude toward life: high points, low points, lessons learned, and the big fish.

CENTER FOR ENERGY, SUSTAINABILITY AND THE ENVIRONMENT

Professor L.S. Fan is the Department’s representative to the College’s Center for Energy, Sustainability and the Environment, which is an outgrowth of programs that were already thriving in the College of Engineering. Ohio State and the College are well-positioned to move research on both renewable and nonrenewable energy into industry and create careers for its students as well as jobs throughout the state, particularly considering its mission as a land grant institution. The center works toward finding new ways to use fossil fuels, developing alternative and renewable energy sources, and addressing the social and political aspects of energy consumption. Near-term research focuses on the basic science and technology of producing clean coal and nuclear power, while longer-term research will explore fuel cells and renewable resources such as solar power.

An internationally recognized expert in energy and environmental reaction engineering, Professor L.S. Fan is developing a process to produce high-purity hydrogen from synthesis gas in a single-stage reactor.
TECHNOLOGY SHOWS PROMISE FOR LIVER TREATMENT

Professor Andre Palmer and his team are developing technology for keeping liver cells alive and functioning normally inside bioartificial liver-assist devices (BLADs). Such devices enable people who are suffering from acute liver failure to survive while their own blood or plasma circulates through the device. Inside, living cells – usually pig or human liver cells – perform normal liver functions. For those liver cells to keep working, they need oxygen. Palmer and his team are developing innovative ways to chemically modify and package hemoglobin, the molecule inside red blood cells that transports oxygen, to deliver oxygen to liver cells in just the right way. In the body, liver cells are naturally exposed to a range of oxygen concentrations, called oxygen gradient. But producing that natural gradient inside a BLAD is difficult. Palmer’s solution has been to create different kinds of hemoglobin-based oxygen carriers. One kind of carrier consists of hemoglobin encapsulated inside nanoscopic polymer shells; oxygen bound to the hemoglobin diffuses through the polymer membrane over time to reach liver cells. Another consists of aggregates of hemoglobin molecules that transport oxygen to liver cells.

UNDERGRAD RESEARCH IN PROFESSOR JESSICA WINTER’S LAB

Several undergraduates have been engaged in research in the laboratory of Dr. Jessica Winter. Craig Buckley and Katie Vermeersch (Class of ‘09) are developing a gold nanoparticle-based biosensor for the detection of enzymes which may be indicative of disease or bio-weapon exposure. The sensor is based on the fact that gold nanoparticles change color from red to blue upon aggregation, and is designed for clinical and military applications. Craig Buckley and J.T. Westerfield (Class of ‘09) are developing gold nanoparticle-polymer composites for non-synthetic biomaterial modification. The composites will permit polymer systems to be modified easily with biomolecules without changing their chemical functionality, greatly enhancing the design of implanted biomaterials. Jean Wheasler (Class of ‘09) and John Larison (Class of ’10) are creating polymeric materials that function as brain tissue mimetics. These materials contain cells, encapsulated in a 3D polymer support, which can be used as a substitute for native tissue in in vitro testing. The polymer supporting material is being produced by Mike Owens (Class of ‘08) and Elise Ferguson (Class of ‘10), who have developed and optimized the synthetic procedure. Winter and her students hope to use these materials to study the migration of Glioblastoma Multiforme tumors, an aggressive brain cancer. Finally, Thierno “Sabu” Baldet (Class of ‘10) is developing aqueous, pH sensitive, fluorescent and magnetic nanoparticles. Because the nanoparticles have both fluorescent and magnetic capabilities they can be used for combination optical/MR imaging. It is hoped that the pH sensitive property will allow these particles to track the endocytosis (cell internalization) process, which may lead to a better understanding of how cells metabolize foreign matter (e.g., viruses, bacteria, toxins).

THE H.C. “SLIP” SLIDER YOUNG FACULTY PROFESSORSHIP

The Slider Professorship was established in 2008 with a gift from William G. Lowrie (BChE 1966) and Ernestine R. Lowrie of Sheldon, SC, in appreciation for Professor Slider’s teaching and mentoring of Chemical Engineering students. The annual income will be used to provide salary and/or program support for an untenured, highly promising faculty member in the Department. Professorship selection will be based upon
accomplishment and potential for excellence, innovation and impact in teaching and research.

RONALD D. AND JANE HESS HARRIS FUND FOR EDUCATIONAL EXCELLENCE

The Ronald D. and Jane Hess Harris Fund for Educational Excellence was established in 2007 with gifts from Ronald D. Harris (CBE 1961) and Jane Hess Harris. The primary purpose of this fund is to help provide excellent educational facilities for the Department or to otherwise provide scholarships for students in the Department. The annual distribution from this fund shall be used to pay construction costs or interest on construction bonds issued for the new building for the Department. Until such construction begins, the distribution shall be used for scholarship support for deserving chemical engineering students. Once construction costs are paid off, the distribution will once again be used for scholarship support.

DOCTORAL PROGRAM REVIEW

Twelve of Ohio State's doctoral programs are now recognized as the best at the university after the completion of a far-reaching Doctoral Program Assessment led by Pat Osmer, Vice Provost for Graduate Studies and Dean of the Graduate School. Osmer’s assessments made use of data compiled by the Office of Institutional Research and Planning, reports submitted by each of the colleges and a review of those reports by a 13-member assessment committee.

Chemical and Biomolecular Engineering was one of the 12 that stood out in terms of quality, planning, focus and potential to enhance the standing of the University.

RANKINGS UPDATE

Ohio State University has been recognized as one of the nation's top public universities in two recently released national surveys. Ohio State is again ranked 19th among the nation's top 50 public universities, according to the U.S. News & World Report's 2008 edition of America's Best Colleges. Ohio State is also rated 10th among national public institutions in the Washington Monthly College Guide.

The third annual Washington Monthly College Guide, which measures what colleges are doing to benefit the country, rates Ohio State 12th in the nation and 10th among public institutions. In the U.S. News rankings of graduate programs the OSU College of Engineering was ranked 29th and the CBE Department 27th among all public and private universities.

WINNER OF GATES SCHOLARSHIP CHOOSES CBE AT OHIO STATE

As a top student at Withrow University High School in Cincinnati, Darius Davis figured that he would earn a scholarship to help pay for four years of college. Davis wound up receiving an extraordinary scholarship that will pay for a whole lot more than that. Davis, who graduated as salutatorian from Withrow this year, was one of 1,000 students who were awarded a 10-year Millennium Scholarship from the Bill and Melinda Gates Foundation. The winners were chosen from 13,000 applicants. The scholarship will finance not only his undergraduate tuition and other expenses, but also his master's and doctoral programs. And it will foot the bill for a year's study abroad, too.

The scholarships are given to minority students with significant financial needs who have excellent academic records and plan to enter one of the science-related professions, where minorities are underrepresented. Davis plans to study chemical engineering at Ohio State. He said he decided to major in chemical engineering partly because science was his most difficult subject in high school. Davis first learned about the Gates Millennium Scholarship program last year while attending a black engineers summer program at Ohio State.

CHEM-E CAR COMPETITION

On March 29, 2008, the Chem-E Car competition in the Mid-West Region was held at the University of Akron. The competition was part of the AIChE Regional Conference. The shoe-box sized “car,” powered by an on-board chemical reaction, designed, built, and run by a dedicated group of our undergraduate CBE students, placed second in the competition. Congratulations to the "traveling team" of 13 members and the other team members that were not able to travel.
With that showing, the Chem-E Car team has been invited to compete at the National Chem-E Car competition during the Fall AIChE Annual Conference in Philadelphia. The National Student Conference runs from November 14-17, 2008.

The students named their car “Joe’s Jewell” after the Koffolt legacy and statue.

CLASS OF 1982 REUNION

The Class of 1982 got together on September 8, 2007 for a 25 year reunion in conjunction with the College of Engineering Reunion Weekend. They met for a cookout and informal reunion in the Unit Operations area of Koffolt Lab. Emeritus Professors Bob Brodkey and Harry Hershey attended, as well as Stuart Cooper and Sherry Stoneman. Members of the class who attended are pictured above.

SHERRY STONEMAN RETIRES

Sherry will retire at the end of January, 2009, making this her last Alumni Newsletter. She will have worked at OSU for over 30 years, nine of those years in CBE. During her time in CBE, she became acquainted with many of our alumni, and without exception she felt that those were positive and enjoyable encounters. In Sherry’s words, “I think CBE alumni are the best! I’ll be missing you the entire time I’m at home reading a book, or traveling, or antiquing, or gardening, or cooking, or, well, you get the picture!”
1939
Dillard W. Kuhlman was an Engineer and Owner of Treated Wood Products, and retired in 2006. He and his wife live in Florida.

1943
R. Marvin Garrett was owner of Margar Engineering Corporation before his retirement. He is active in numerous clubs and societies and lives in California.

1944
Clarence Haverly is owner and President of Haverly Systems Inc., providing software and services to the oil industry. He and his wife live in New Jersey.

1950
Verne R. Rinehart has been retired for 20 years from Goodyear Research in the Polyester Research and Development Department. He has seven patents in polyester and built three polyester plants in Brazil, Argentina and Colombia. He and his wife live in Ohio.

1955
Richard A. Drewyor is a retired Army Major and a retired school teacher. He is a Viet Nam veteran and is President of the Huntsville Bridge Club. He lives with his wife in Alabama.

1957
Tom Winkle is retired and lives with his wife in Arizona.

1958
James C. Leslie is an engineer and business owner of Advanced Composite Products and Technology Inc. He has won several awards and has over 30 publications. He lives in California with his wife.

1959

1977
Robert L. Collins manages the Associate Degree Program at Stark State College of Technology. He has recently completed a Master of Science degree in Occupational Safety and Health from Columbia Southern University.

1981
Charles Engelhardt is the Supervisor of Operation Analytics at First Energy Corporation. His son Lucas is also a Buckeye, in his third year of a doctorate program in Economics. Charles returned to school and is in the first year of an MBA program at Malone College. He lives in Ohio with his wife Paula.

1982
Joyce Wagner Mondak is an instructor at the Life Skills Center. Her son was accepted to OSU last fall. Joyce lives with her husband in Ohio.

1983
Michael Begland is a Reservoir Engineer and Vice President of Netherland, Sewell and Associates, Inc. He is married to Tracy Flora Begland.

1985
David J. Moonay is a Sales Engineer at Brookfield Engineering Labs. He lives in Massachusetts.

1997
Michael Triplett is Pharmaceutical Development Manager at Ventaira Pharmaceuticals. He was named to Accelerating Excellence’s (BioOhio’s Official Publication) “Thirty in Their 30s” list of top, young bioscience talents in the State of Ohio. He lives in Ohio with his wife.

1998
Nicole (Williams) Vitale is Senior Project Engineer at Westinghouse Electric Company. She lives with her husband in Pennsylvania.

2004
C.J. Roebuck is an Environmental Engineer at Camp, Dresser and McKee. C.J. spent three months in New
Orleans helping with the Katrina clean-up. He lives with his wife in North Carolina.

IN MEMORIAM

James R. Cameron, 1941, passed away on April 24, 2007, in Bedford, Ohio. After retirement from Republic Steel he worked at several colleges and universities. He served two terms in the Navy and retired as a Commander.

Glenn Gifford, 1943, passed away on July 20, 2007 in St. Louis, Louisiana. Glenn was a staunch supporter of the Department and was active in the Alumni Association.

Fred Zind, 1952, passed away on January 19, 2008. He is survived by his wife Elinor.

Jeffrey C. Elias, 1982, passed away on May 10, 2008, following an extended illness. Jeff was a Research Engineer with the Transportation Research Corporation for 20 years.

ALUMNI NOTES

Richard N. Eilerman, Class of 1951, provided us with the following anecdote:

When I first became a student at OSU I had no idea what the future held for me other than that I wanted to become a Chemical Engineer. I am sure that Joe Koffolt played a major role in my becoming not only a Chemical Engineer but also receiving a job offer that led to a very interesting career as a rocket engineer, one that included working for Dr. Hal Ritchey (eventual President of the Thiokol Chemical Corporation); Dr. Von Braun at the Army Ballistic Missile Agency and at the George C. Marshall Space Flight Center; and also for Martin Marietta at Vandenberg Air Force Base. As such I helped put our first satellite into orbit (50 years ago); selected and provided all of the retro and ullage rockets used on the Saturn I, IB and V launch vehicles; was responsible for developing and providing a safer arming and firing system (exploding bridge-wire) for igniting the solid propellant rockets; helped develop the Shuttle Booster Rocket; and helped troubleshoot and launch 21 Peacekeeper missiles.

Every time I needed help, Joe, without hesitation, was always there to provide the help that I needed, particularly in the form of part-time or temporary jobs.

Jim Laughlin, Class of 1959, updated us on his career:

Since my graduation as one of “Joe’s Jewels” I have enjoyed a 28-year career with Union Carbide Corporation (now Dow Chemical) and a 6-year career with BASF Corporation.

In May 1998, I decided to start my own company—Laughlin Logistics, Inc. LLI provides supply chain consulting services, primarily in sales and marketing, for numerous chemical warehousing, packaging, and transportation companies throughout the United States and Canada.

Jim was co-captain of the varsity basketball team in 1957-1958 and returns every winter for the annual Captain’s Reunion at the Schottenstein Center.

Ah-Hyung "Alissa" Park, Ph.D. 2005, is now the Lenfest Junior Professor in Applied Climate Science and Associate Director of the Lenfest Center for Sustainable Energy in the Department of Earth and Environmental Engineering, Department of Chemical Engineering, at Columbia University.
1936  
Joseph G. Mravec

1937  
Louis E. Ruidisch

1939  
Dillard W. Kuhlman

1940  
Charles Boardman III  
Loren F. Grandey  
Walter C. Wendschuh

1941  
Thomas F. Lavery  
David Thomas

1942  
Donald S. Arnold  
Randal E. Bailey  
R. Richard Midlam

1943  
Halvor S. Christianson  
Dalton F. Drake  
Glenn L. Gifford  
Leonard A. Harris  
James R. Randall  
Roy E. Schneider  
Carlyle E. Shoemaker  
James C. Wynd  
Hong T. Yee

1944  
Wallace L. Bostwick  
Clarence A. Haverly, Jr.  
Edward W. Powell

1945  
Robert S. Atkinson

1946  
Kenneth A. Brandstetter  
Haskell H. McGriff, Jr.

1947  
William K. Fell  
Thurman L. Graves  
Lewis C. Hullinger  
Robert M. Kell  
John M. Kolbas  
J. Bruce Martin  
Bryce H. McMullen  
Donald F. Stauffer  
Leroy P. Streett

1948  
Richard A. Arnold  
Franklin M. Ernest  
Lee B. Fosdick  
Earl W. Goodman  
Dick F. Hoffman  
Robert E. Kraus  
Cloyd P. Reeg  
R. Ted Scharenberg  
George R. Sechrist  
Robert M. Tarr

1949  
Paul E. Bates  
Gordon G. Cross  
J. Howard Kerstetter, Jr.  
Frederick A. MacDougall  
Donald R. Roberts  
Glen D. Schaaf  
Roland I. Spencer

1950  
Walter E. Donham  
Walter T. George  
Verne R. Rinehart  
Jean Maurer Scharenberg  
Richard L. Scott  
Ralph E. Sieber

1951  
Charles E. Breithaupt  
Richard N. Eilerman  
Rob R. MacGregor, Jr.  
John R. Parkinson  
Norbert F. Reinert  
David B. Speed  
David A. Strang  
Robert B. Weiser  
Bruce W. Wilkinson  
Robert M. Yarrington

1952  
James F. Froning  
Donald E. Haupt  
C. Richard Heil  
Charles J. Schmitz  
David G. Stephan  
Frederic F. Zind

1953  
Robert A. Bates  
G. Clyde Bazell  
Roger L. Briggs  
David E. Buskirk  
Donald E. Findlay  
Robert T. Hewitt  
Wilfred C. Ling  
Donald A. MacDougall  
Harold L. Stelzer, Jr.  
James L. Wilson  
William H. Wiseman

1954  
Gilbert E. Raines

1955  
John R. Blunden  
Wendell B. Hammond, Jr.  
Phillip J. McAteer
1956
Robert A. Cody
William D. Coe

1957
Walter R. Andrews, Jr.
A. Leo Carter
Herbert H. Fanning
Walter A. Flack
Jon D. Helms

1958
Edward H. Bollinger
Charles N. Carpenter
John J. Connelly
Dan M. Hayes
Werner S. Lichtenstein
Norman F. Lucas, Jr.
Valdis E. Petritis
Richard M. Smith
Harold A. Sorgenti
James W. Stark
Lawrence R. Steele

1959
Lee W. Addie
James O. Albery
Sun W. Chun
James R. Goodwin
Ronald M. Kovach
James W. Lacksonen
Darryl J. Von Lehmden
Gerald A. Wilcox

1960
Virgil L. Anderson
Carl Brooks, Jr.
Guy A. Crossley
Edgar W. Fasig, Jr.
Orville W. Gruebemaker, Jr.
George M. Hauswirth
Gordon R. Howard
Marion H. Marshall
Warren E. McAdams
Lee R. Stewart
Russell L. Wilt

1961
Paul R. Bigley
Richard B. Cooper
Edward R. Corino
Ronald L. Follmer
Ted Hanson
Ronald D. Harris
Jack A. Hammond
Donald I. King
David A. Parker
Jerry B. Pausch
Larry E. Woodworth

1962
Richard L. Hoffman
James R. Opatrny
C. David Osbun
Dean Snyder
Michael D. Winfield

1963
Nelson W. Barnhill
Gary L. Beeler
Myers G. Hammond
John P. Henry, Jr.
Robert P. Kasper
Fred A. Shaffstall
Kay Logan Snider

1964
Alkis Constantinides
Michael B. Cutlip
James A. Moomaw
James B. Sapp

1965
Charles E. Baumann
Oliver L. Davies
Frederick H. Flor, Jr.
John P. Gegner
Arthur H. Morth
Frederick J. Rerko
Michael C. Royer
John A. Weaver
Eugene N. Wheeler

1966
James G. Arnold

1967
William F. Deerhake
Thomas E. Fitz, Sr.
William G. Lowrie
Glenn L. McKee

1968
John W. Bradshaw
F. William Hauschildt, Jr.
Dennis W. Hurley
Wilma Diskant Jancuk
Martin R. Okos
Graham F. Painter, Jr.
Bruce E. Poling

1969
John M. Salladay
Doug Smith

1970
James F. Dietz
Robert D. Litt
M. Anandha Rao
Steven E. Russell
John W. Toussant

1971
Bradford F. Dunn
David R. Grove
Charles A. Klingensmith
Micheal S. Lerch
Rosa Uy

1972
Juliet Davison Balmer
Kerry G. Hertenstein
Harry L. Stebbins
Charles L. Steel
Paul R. Swartz

1973
Michael J. Clark
James P. Russell
1974
Steve Irwin
George L. Ott
Michael A. Patterson

1975
John T. Erikson

1976
Donald Buchanan, Jr.

1977
Douglas J. Hallenburg
Thomas M. Jones
Kenneth A. Yunker

1978
Douglas T. Brown
Janet Lyons Inkrott
Mike Moore
David W. Sass
Rad V. Scott III
Elizabeth Ann Stuber
Neil P. Stuber
Paul W. Vance, Jr.
Thomas E. Winkler

1979
Kevin R. Cole
Darice Ann Davis
John F. Kreinbrink
David J. Wasela
Tad K. Williams

1980
Frederick T. Clark
Bruce R. DeBruin
Carol Bur Ehrman
Fred D. Ehrman
Joseph F. Ennis
Matthew J. Galosi
Mark A. George
Daniel R. Schweagerle
Pankaj P Shah
Timothy L. Strickler
David G. Vutetakis

1981
Nancy Coultrip Dawes
Sunil Satija
James A. Telljohann
H. Charles Wolf

1982
James J. Givens
Alex W. Kawczak

1983
Michael B. Begland
Tracy Flora Begland
Mark D. Dieringer
Ronald A. Howdyshell
Carolyn Marie Lin
Scott E. Lugibihl
Keith R. Nowak
Jeffrey W. Patterson
Clark B. Wade

1984
Mark S. Bitto
John A. Bohlmann
Shahriar Khabiri
Randall L. Lonsbrough
Gregory M. Masica
George W. Miller
Roger W. Nelson
Jagannadh V. Satyavolu

1985
Roger G. Facer
Timothy A. Johnson
David J. Moonay
Richard T. Strait

1986
Rajeev L. Gorowara
Bipender Swarup Jindal

1987
Jeffrey D. Adams
Denise Marie Burcham
Karen S. Johnson
Martin D. Legg
D. Brian Noe
Maureen McClain Visneski

1988
Amy Schmitt Doty
Joseph F. Ennis
M. Alison Jabbour

1989
Stuart F. Doty

1990
Craig M. Kehres
James V. Lombardi
Timothy F. Matheis

1991
Kristan Kissell Latham
Rick Wright

1992
Pamela Jean Archer
Christina Marie Ellis

1993
Samir Kumar
Frank E. Seipel

1994
John D. Clay

1996
Mark E. Buzek
Beth Gibson
Jack R. Reese II
Liping Zhang

1997
Paul D. Cowan
Theresa Ann Dziewatkoski
Xukun Luo

1998
Carrie Elizabeth Chambers
Michael T. Timko
Likun Zhang

1999
Matt Ehlerding
Jack Zakin, commenting on Bob Brodkey’s fifty year service to the Department (see Awards and Honors): I have known Bob Brodkey longer than any of the still active faculty members—more than 40 years. As his friends and colleagues know, he is cheerful, scientifically imaginative, and a serious and discerning collector of art and sculpture. One needs only to step into his office or his lab to see the overflow of art from the many pieces he and his wife, Caroline, have in their home.

Over the years he has taught many different courses in the Department, and he has also been an outspoken participant in faculty meeting discussions. There are few topics about which he does not have one or more opinions and he is not shy about sharing them.

One of his finest characteristics is his willingness to give time to and share ideas and advice with other researchers: many undergraduates, graduate students, post-docs and faculty colleagues have benefited from his willingness to mentor them on research problems and I include myself among them.

Jack Zakin and Bob Brodkey in 1986
We have received word that the rebuilding of Koffolt Laboratories now has a defined concept, location, timetable, and most importantly, assured funding for the state portion. Campus leadership, in working out a plan for the North Campus, has decided that the needs of Chemical and Biomolecular Engineering and Chemistry can each be met in a joint segmented building at the site of the current Lord Hall. It was agreed that the building could be completed by 2014 and the next step will be a new feasibility study to identify the space needs of each department. The Chemistry component will be mostly organic chemistry laboratory space. It is expected that there will be some savings in cost and square feet as the two departments can share some of the infrastructural features such as loading dock, conference rooms, shop facilities, etc. A very rough sketch of the building concept appears above. Note that the scale of the two building segments may be off and that the roof will necessarily have a “pipe organ” appearance due to the fume hood requirements. Many other details will have to be worked out during the serious planning stage which will begin soon.
WILLIAM G. LOWRIE WINS ALUMNI MEDALIST AWARD

William (Bill) Lowrie, Class of 1966, won the 2008 Alumni Medalist Award. This award is presented for national or international career achievement and is the single highest honor accorded by The Ohio State University Alumni Association, Inc. It is presented to alumni who have gained national or international distinction as outstanding exponents of a chosen field or profession and who have brought extraordinary credit to the University and significant benefit to humankind. Only one award may be presented annually, and the Medalist may be selected from among nominees in this or any other award category.

RON HARRIS WINS MERITORIOUS SERVICE AWARD

Ron Harris, Class of 1960, received the College of Engineering Dean’s Meritorious Service to Students Award. This award recognizes an individual or group from outside the Ohio State community for exemplary service to students of the College of Engineering or Knowlton School of Architecture. It recognizes the support of engineering or architecture students through classroom presentations, internship and co-op opportunities, scholarship and student organization or activity.

Ron was nominated for his many years of volunteer teaching involving classroom presentations, seminars and active participation in Chemical and Biomolecular Engineering freshman panel discussions. Also significant is his funding of scholarships, service on our Industrial Advisory Board and mentoring of undergraduates.

PROFESSOR L.S. FAN RECEIVES THE DISTINGUISHED UNIVERSITY SERVICE AWARD

L.S. Fan received the Faculty Award for Distinguished University Service, with President Gee surprising him in his classroom to present the honors. The Award recognizes faculty members whose extensive contributions to the development and implementation of university policies and programs through non-administrative roles have made an impact on the quality of the University. Fan, who joined Ohio State 30 years ago, was the Department Chair for nine years. He has served as the chair or a member of more than 30 committees in the Department, College and University, including the University Presidential Search Committee.

Dr. Gee surprises L.S. during a classroom visit.

AIChe HONORS PROFESSOR L.S. FAN

This year marks the 100th Anniversary of the founding of the American Institute of Chemical Engineers (AIChE). To mark this milestone, the Awards and Recognition Subcommittee of the Centennial Celebration Committee developed lists of individuals who contributed to the profession and society in a variety of times and ways. These lists highlight...
advances in the profession during the years before World War II (“Foundation Age”) and after (“Modern Age”), as well as the authors of groundbreaking books, industrial executives, astronauts, and chemical engineers who achieved fame in other pursuits. Dr. Fan was named one of the “One Hundred Engineers of the Modern Era.”

PROFESSOR FAN SELECTED FOR THE 2008 AWARD FOR INNOVATION IN COAL CONVERSION

The International Pittsburgh Coal Conference and the University of Pittsburgh selected Professor L.S. Fan as recipient of the 2008 Award for Innovation in Coal Conversion (also known as the Pitt Award). This award recognizes his outstanding contributions in the development and application of numerous technical innovations for coal conversion and clean coal technology.

PROFESSOR LEE RECEIVES MALCOLM E. PRUITT AWARD

Professor L. James Lee was awarded the 2008 Malcolm E. Pruitt Award of the Council for Chemical Research. The Pruitt Award is given annually in recognition of outstanding contributions to the progress of research in chemistry and chemical engineering achieved through mutually beneficial interactions among universities, government laboratories, and the private sector.

PROFESSOR LEE RECEIVES TECHNOLOGY AWARD

Professor L. James Lee received the Technology Award of the 2008 Society of Plastics Engineers Engineering/Technology Award. Professor Lee will be awarded a plaque and an honorarium during the Award Symposium.

PROFESSORS KOELLING AND TOMASKO RECEIVE LUMLEY RESEARCH AWARDS

Professors Kurt Koelling and David Tomasko each received the College of Engineering 2008 Lumley Research Awards. These awards are presented to a select group of outstanding researchers in the College who have shown exceptional activity and success in pursuing new knowledge of a fundamental or applied nature. The $1,500 award is in honor of John H. Lumley, a 1927 graduate of ceramic engineering. The John H. and Mildred C. Lumley Engineering Endowment Fund, established with $747,000 from the Lumley estate, is intended to promote and enhance research within the College of Engineering.

PROFESSOR W.S. WINSTON HO WINS INNOVATOR’S AWARD

Professor Winston Ho was awarded the College of Engineering Innovators Award, which was established by the Engineering Experiment Station in 2007. The $1,500 award is presented each year to an individual or team of faculty and/or research scientists who best demonstrate innovation in the development of a product and/or technology originating from the Ohio State research enterprise. This award recognizes the achievement of an individual or team whose innovation has successfully translated the research emanating from our laboratories into new products and/or technologies that can be used by the public at large.

Professor Ho was nominated for two major membrane technologies. The first technology enables the production of high purity hydrogen for fuel cell and energy applications. The second innovation developed membrane technology for water purification applications.
PROFESSOR DAVID TOMASKO SELECTED FOR SPHINX SENIOR HONORARY

David Tomasko, Professor of CBE and Director of the Honors Collegium, was selected as an honorary member into the Sphinx Senior Honorary. Founded as a men's class honorary, Sphinx inducted its first female members in 1978. Since its inception, Sphinx has remained one of the most selective and prestigious organizations at The Ohio State University. The organization recognizes up to 24 outstanding juniors during spring quarter by “linking them into Sphinx.” Criteria for selection include leadership, scholarship, character and service while attending The Ohio State University. Sphinx members are individually active in numerous student and community organizations while the group also takes part in many campus events, volunteers with local organizations and participates in quarterly advances.

CBE DEPARTMENT RECEIVES DIVERSITY AWARD

CBE, for the second year in a row, was awarded the Minority Engineering Program’s Departmental Award. This award is given annually to the engineering department that has been the most prolific and proficient in developing activities to improve the academic performance, recruitment, and retention of minority students.

2008 OUTSTANDING ADVISOR AWARD

Mary Hoy, the CBE Undergraduate Student Advisor, was a recipient of the Outstanding Advisor Award given by the Academic Advising Association of Ohio State (ACADAOS). This award is jointly sponsored by the OSU Office of Academic Affairs. During her five years as academic advisor in CBE, Mary made many exceptionally positive contributions towards the mission of our undergraduate program. Her helpful and supportive interactions with students have been consistently listed by graduating seniors as top strengths of the Department. She redesigned and taught the freshman survey course, improving the exposure of first-year students to CBE faculty and research, and providing more targeted information about career opportunities in Chemical Engineering. She was instrumental in addressing diversity issues in our student population, efforts that contributed to CBE receiving the OSU Minority Engineering Program’s Department of the Year award in both 2007 and 2008. Mary also contributed in many ways “behind the scenes” by serving on the Department’s Curriculum Committee, computerizing records, maintaining and using various databases, and helping with many of the assessment activities important for accreditation.

Mary left the Department in June to take a new position as the Assistant to the COO at Franklin University. CBE students, faculty, and staff are sad to see her leave, but thank her for her many contributions to our program. We wish her the best in her new job.

SIGMA XI AWARDS

Wu Ge (Professor Emeritus Jack Zakin, Advisor) received a Sigma Xi grant-in-aid application entitled “Studies of Novel Gemini Surfactant Systems as Drag Reducing Additives for District Heating/Cooling Systems.” His application was selected among the top research proposals submitted to the chapter for 2008.

Jean Wheasler and Craig Buckley (both Juniors in Professor Jessica Winter’s lab) received grants-in-aid for scientific research. These awards reward and promote student research through cash awards and a recommendation to National Sigma Xi for membership.

CBE STUDENT AWARDED THE GOLDWATER SCHOLARSHIP

Craig Buckley received a prestigious Barry M. Goldwater Scholarship. It is considered the nation’s most prestigious honor for undergraduate researchers in science, math, and engineering. The scholarship will cover the cost of tuition, fees, books, and room and board up to $7,500 per year for one or two years.
PRESIDENTIAL FELLOWSHIP

Vikas Khanna (Professor Bhavik Bakshi, Advisor) won a Spring 2008 Presidential Fellowship. These fellowships recognize the outstanding scholarly accomplishments and potential of graduate students entering the final phase of their dissertation research or terminal degree project. Recipients of this award embody the highest standards of scholarship in our graduate programs.

GRADUATE TEACHING FELLOW

Elizabeth Biddinger (Professor Umit Ozkan, Advisor) was selected as a 2008-2009 Ohio State Teaching Enhancement Program (OSTEP) Graduate Teaching Fellow. OSTEP offers support and opportunities for senior graduate students. This program is co-sponsored by Faculty and TA Development and the Graduate School and is supported, in part, by a strategic investment initiative of the Office of Academic Affairs.

HAYES GRADUATE RESEARCH FORUM

CBE student Jeff Ellis placed third in the Engineering category in the Hayes Graduate Research Forum. The Forum is co-sponsored by the Council of Graduate Students, the Graduate School and the Office of Research. The Forum is designed to:

- Provide a significant professional development experience for OSU graduate students;
- Encourage graduate students to share their research with the academic community;
- Recognize outstanding graduate student scholarship within the University; and
- Facilitate exchange between students, faculty, administration, and the public.

AMERICAN INSTITUTE OF CHEMICAL ENGINEERS AWARDS

He Bai (Professor Winston Ho, Advisor) was selected as winner of the 2007 Graduate Student Award from the Separations Division of the American Institute of Chemical Engineers. This is a highly competitive award with a global request for nominations.

Undergraduate Katie Vermeersch won third place in the AIChE Regional Student Paper Competition.

PROFESSOR BAKSHI’S STUDENTS SHINE

Dr. Jorge Hau received the second prize in the AIChE Environmental Division's Graduate Student Paper competition for his paper, “Enhancing Life Cycle Inventories via Reconciliation with the Laws of Thermodynamics” (Hau, J. L., Yi, H.-S., and Bakshi, B. R., J. Industrial Ecology, 11, 4, 2007). This is Jorge's second such award from the Environmental Division.

Dr. Nandan Ukidwe received an honorable mention in the Graduate Student Paper competition for his paper, “Industrial and Ecological Cumulative Exergy Consumption of the United States via the 1997 Input-Output Benchmark Model” (Ukidwe, N.U., and Bakshi, B.R., Energy, 32, 1560-1592, 2007). Previously, Nandan also received the OSU Presidential Fellowship.

Two graduate students won awards in the student technical paper contest at the IEEE Symposium on Electronics and the Environment held in San Francisco. Geof Grubb won the first place award for his paper titled, “Energy and Environment Analysis of Titanium Dioxide Nanoparticles.” Vikas Khanna won the third place award for his paper titled, “Assessing the Environmental Life Cycle Implications of Polymer Nanocomposites.”

ELIAS KLEIN FOUNDERS’ TRAVEL AWARD

Graduate Student Michael Vilt (Professor Winston Ho, Advisor) has been selected as a winner of the 2008 Elias Klein Founders’ Travel Award from the North American Membrane Society (NAMS). The selection of this award is based, in part, on academic achievements, and it will provide up to $500 for Mike to present a paper, entitled “Supported Liquid Membranes with Strip Dispersion for the Recovery of Cephalexin,” in an oral and a poster session at the 2008 International Congress on Membranes and Membrane Processes (ICOM) in Honolulu, Hawaii on July 12 - 18.
**POSTER AWARDS**

Elizabeth Biddinger and Lingzhi Zhang (Professor Umit Ozkan, Advisor) shared the first place at the Annual Symposium of the Tri-State Catalysis Society for Best Poster Award.

**NATIONAL SOCIETY OF BLACK ENGINEERS**

Undergraduate student Frederick Crawford placed second at the Regional National Society of Black Engineers Conference in the Undergraduate Students in Technical Research Competition.

**LOWRIE HONORS BANQUET AWARDS AND RECOGNITIONS**

**AMERICAN INSTITUTE OF CHEMISTS FOUNDATION AWARDS**

- AIC Outstanding Undergraduate Student Award
  - Awardee: Ryan Cobb
- AIC Outstanding Graduate Student Award
  - Awardee: Wu Ge
- AIC Outstanding Postdoctoral Award
  - Awardee: Jingjiao Guan

**DOW CHEMICAL**

- Dow Outstanding Junior Award
  - Awardee: Alex Haas

**AICHE STUDENT AWARDS**

- AICHE Central Ohio Section Outstanding Student Award
  - Awardee: Kristen Hendrix
- Donald F. Othmer AICHE Sophomore Academic Excellence Award
  - Awardee: Elise Ferguson

**AICHE Student Chapter Officers**

- President – Kristen Hendrix; VP – Andrew Shives;
- Treasurer – David Bell; Secretary – John Larison;
- Membership Chair – Anthony Duong; Philanthropy Chair – Sandy Abraham; Publications – Jeff Skinn;
- Social Chairs – Pat Wilson and Jenny Kovach;
- Historian – Eric Sacia; ChemE Car President – Craig Buckley; ChemE Car VP – John Larison; ChemE Car Treasurer – Lindsay Volpent; ChemE Car Safety Chair – Jeff Skinn

**DEPARTMENT OF CHEMICAL AND BIOMOLECULAR ENGINEERING AWARDS**

**Co-Op Award**

- Awardee: Kim Miller

**Outstanding Undergraduate Award for Research Excellence**

- Awardee: Anthony Duong
- Awardee: Brian Fraley
- Awardee: Kimberly Hoang
- Awardee: Eric Riethman
- Awardee: Andrew Tong
- Awardee: Brittany Valentine

**Outstanding Graduate Award for Academic Achievement**

- Awardee: Elizabeth Biddinger
- Awardee: Nandita Lakshminarayanan
- Awardee: Fanxing Li
- Awardee: Shwetha Ramkumar
- Awardee: Yuan Wen
- Awardee: Chi Yen
- Awardee: Bo Yu
- Awardee: An Zhang

**Outstanding Post-Doc Award for Research Excellence**

- Awardee: Jingjiao Guan
- Awardee: Songgeng Li
- Awardee: Burcu Mirkelamoglu
- Awardee: Rong Xing

**CEGC Officers**

- Academic Officer – Nicole Guzman
- Social Officer – Dieter von Deak
- Recruitment Officer – Jonathan Kowalski
- Facilities Officer – Aarti Arumugam
- Business Officer – Manish Talreja

**Fifty Years of Meritorious Service to the Department**

- Dr. Robert S. Brodkey
Lowrie Banquet Awards attendees, arranged from top to bottom, left to right

Bud Baeslack, Carol Hall and Stuart Cooper, Jack Zakin and Jingjiao Guan, Nandita Lakshminarayanan and Kurt Koelling
Brittany Valentine, Jim Rathman and Kim Miller, Andrew Tong and Dave Tomasko, Kimberly Hoang
Kurt Koelling, Dieter von Deak, Nicole Guzman, Jonathan Kowalski
Carol Hall, Bob Brodkey, Marty Feinberg, Sherry Stoneman, Carolyn Patch (large photo at right)
An Zhang and Kurt Koelling, Burcu Mirkelamoglu
Bob Brodkey and Jim Rathman, Swetha Ramkumar, Umit Ozkan and Bob Brodkey, Songgeng Li
Our department benefits from a variety of types of Alumni support. These include graduates who have established endowment funds which support undergraduate scholarships, annual support received from Jewels Club members and from annual support that is designated for the general fund of the department. This support is vital to the quality of our program and helps us provide an educational experience for our students that transforms them into future leaders of our profession.

Now we ask that you consider another category for your giving plans, the campaign for the New Koffolt Laboratories, a once every 50-60 year opportunity to provide a great new home for the department. The department must raise approximately $17.5M of the more than $120M that the building will cost, and University policy will not allow any construction to begin as scheduled in 2012 unless we have 75% of the $17.5M raised or in firm pledges. We are in the silent phase of the building campaign with close to $3M in an interest bearing account so we are making good progress thanks to generous alumni. Please let us know if you would like more information on possible giving options, including making a multi-year pledge to our Koffolt Laboratories building fund.

Amount Enclosed ________________________________

Check Credit Card

Please make checks payable to the Chemical and Biomolecular Engineering Department

Please charge my:

Visa Mastercard Discover American Express

Name on Card _________________________________

Account Number ______________________________

Expiration Date ______________________________

Signature ___________________________________

Please indicate where you would like your donation applied:

Jewel’s Club, 310335 New Building Fund, 310614 General Fund, 302693
# 2007-2008 Alumni News

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## ACTIVITIES

News and information to share with fellow alumni and friends in Chemical Engineering. Work related, outside activities, achievements, honors, family news, etc.

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What is going on here? This picture was taken during Unit Ops lab, sometime in the early 1960s. If you can supply any pertinent information regarding this photo or would care to contribute something of your own, please send email to Geoff Hulse, hulse.1@osu.edu. Many of the photos will eventually be posted on-line where they can be reviewed by Alumni, similar to the archive of recent departmental activities, such as banquets, picnics and Unit Ops.