

Chemical Engineering *NEWSLETTER*

Fall 2001

Purdue University

Professor Greenkorn retires...



(left to right Professor 'Rex' Reklatis, Rosemary Greenkorn, & Professor Robert A. Greenkorn, Professor Nicholas Peppas)



(left to right Professor Joseph A. Pekny, Professor Robert A. Greenkorn, Professor K. C. Chao, Dr. Steven Beering, and Professor John McLaughlin)



(left to right David R. McKinnis, Ph.D., TAP Director talks with former TAP Director Professor Robert A. Greenkorn)

Professor Robert A. Greenkorn, the R. Games Slayter Distinguished Professor of Chemical Engineering, was honored with a reception in September. He came to Purdue in 1965 and two years later was named Head of the department, a post he held until 1973. This was followed with an impressive list of administrative posts within the university, during which time he also managed to continue teaching, do research, and publish—and to the marvel of all: accomplished all this with the most organized desk ever seen!

Professor Peppas, in a moving tribute to Bob during the retirement ceremony, made the point with a fine rhetorical flourish:

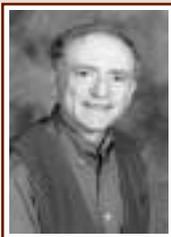
"For who can point out any other Vice President of any major university who, while bearing such high academic responsibilities continued to do research with a large number of Ph.D. students?

- while running the graduate school of Purdue continued to give scientific talks in research meetings?
- while addressing legislators in Indianapolis continued to teach undergraduate students in large classes?
- while representing Purdue in alumni functions continued to write successful textbooks and monographs in his field?

- and while being in charge of Purdue's research activities continued to mentor undergraduate students and show up in all the ChE faculty and even graduate committee meetings?

Positions held at Purdue University

- Head, School of Chemical Engineering (1967-73)
- Assistant Dean of Engineering (1973-76)
- Associate Dean of Engineering (1976-80)
- Vice President and Associate Provost (1980-86)
- Director of Engineering Experimental Station (1976-80)
- Director, Institute for Advanced Interdisciplinary Engineering Studies (1972-75)
- Acting Head, Aeronautical & Astronautical Engineering (1973)
- Director, Environmental Engineering Center (1976-78)
- VP for Programs, Purdue Research Foundation (1980-2000)
- VP for Research (1986-93)
- VP for Research and Dean of the Graduate School (1993-1994)
- Special Assistant to the President (1994-2000)
- Vice President for Special Programs of the Purdue Research Foundation, and Research Coordinator of the Indiana Pollution Prevention and Safe Materials Institute at Purdue (1994-2000)



Robert Davis (BSChE '68) is the General Manager, Worldwide Hydrocarbon Equipment and Technology for Air Products & Chemicals, Inc. He

was a founding participant in the School's New Directions program and is now on its Executive Committee. For the past three years, he has been a guest speaker for several courses and has served on the Industrial Advisory Board for the Society of Hispanic Professional Engineers (SHPE) at Purdue while also providing direct recruitment support for SHPE, SWE and NSBE.

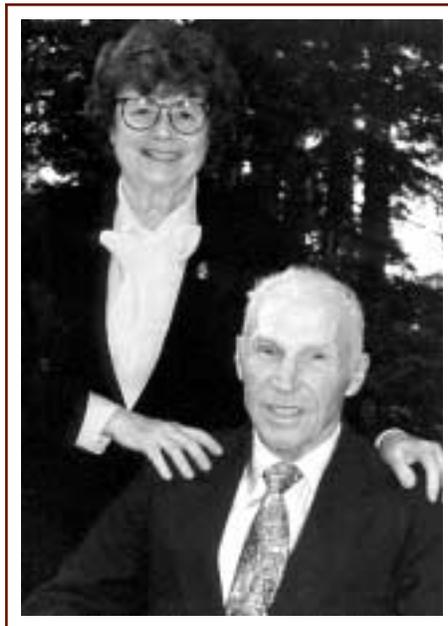


Abbie Griffin (BSChE '74) is Professor of Business Administration, College of Commerce at University of Illinois at Urbana-Champaign. With

an MBA from Harvard and graduate work in ChE at MIT, she combined her engineering background with a business education to create a career focused on understanding and improving the processes of new product and technology development and commercialization. Editor of the *Journal of Product Innovation Management*. She has been a Board of Directors and Executive Committee member of the Product Development & Management Association since 1991.

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Alums' support sets pace for the school's largest expansion and renovation in more than 60 years

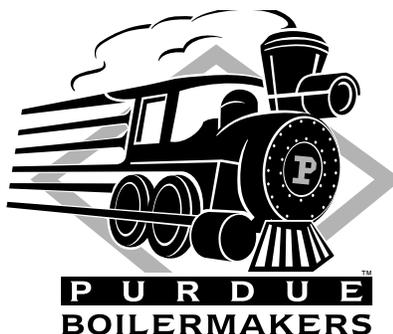


Robert and Marilyn Forney (both BSChE '47) of Unionville, Pennsylvania, are covering the engineering and design fees and a major portion of the estimated \$20 million-plus enhancement costs. Robert Forney retired in 1989 as executive vice president of DuPont, and Marilyn Forney has spent the past 20 years offering expertise in the building of housing for the very low-income in Delaware and Pennsylvania. "We've stayed in touch with

Purdue, particularly the School of Chemical Engineering, and we understand the need for both the expansion and the renovation because a lot of things have changed since 1950," said Robert Forney, who also earned a doctorate in 1950 and was awarded a Purdue Honorary doctorate in 1981. "We decided we wanted to get involved with this project because, in addition to its other features, it will pave the way for more research and graduate studies in chemical engineering in this new century and new millennium."

Marilyn Forney, who has led fund-raising efforts in a number of volunteer organizations, said it is important to give to worthy enterprises. "Our education at Purdue has been a very integral part of our life, and we feel it's important to give back. This is an important venture because of the many profound developments in chemical engineering, and we cannot afford to let these ongoing changes get past us. This expansion and renovation will keep Purdue at the top of the field."

Professor Reklaitis said gifts, like the Forneys', make this enhancement possible. "Bob and Marilyn have been long-term supporters of the school, concerned with its well-being, growth and leadership," Reklaitis said. "Schmidt Associates of Indianapolis is working on the design of the project now, and we would certainly not be at this stage without the Forneys' help." Construction and renovation is projected to begin this fall with completion expected in 2005.



2000 Honorary Doctorate & Distinguished Engineering Alumni

Honorary Doctorate

William D. Young (BS '66)



Mr. Young, a leading figure in the field of biotechnology, is chairman of the board and chief executive officer of ViroLogic, Inc. His early experience was with Eli Lilly and Genentech, which he helped lead to premier success as a bio-

pharmaceutical company. A founding fellow of the American Institute for Medical and Biological Engineering, he was elected to the National Academy of Engineering in 1993 and a Distinguished Engineering alumnus in 1994. His appointment at ViroLogic reflects his renowned commercial and development expertise for the marketing and manufacturing of novel therapeutic products, and his accomplishments as a leader and manager in the biotechnological industry.

Distinguished Engineering Alumna

Linda L. Huff (BS '70)



Ms. Huff is president of Huff & Huff, Inc., specializing in environmental, chemical, and civil engineering consulting with industrial, municipal and commercial clients. The company is known for outstanding analyses in the area of remediation and risk assessment. After beginning her professional career at P&G she went to the newly formed EPA, and then earned an MBA from the University of Chicago. Her consulting career began after that. Never one to shy away from a challenge, not only was she the only woman in her chemical engineering class, but she is one of a select few women who own their own consulting firms. She shares her entrepreneurial spirit in the many activities she participates in by way of outreach to both community and

academia. Named an Outstanding Chemical Engineer in 1991 by Purdue, she has been the president of the Consulting Engineers Council of Illinois, twice receiving the Distinguished Service Award, and National Director of the American Consulting Engineers Council.

Kelly Lecture

Robert A. Brown, Provost & Warren K. Lewis Professor of Chemical Engineering (MIT)



Robert A. Brown received his B.S. ('73) and M.S. ('75) from the University of Texas at Austin and his Ph.D. ('79) from Minnesota. He then joined MIT,

served as Head of Chemical Engineering, 1989–95, and Dean of Engineering, 1996–98. He also oversees the operation of Lincoln Laboratory. Professor Brown has been active in the development of new models for research universities in a global economy, including distance education programs and industrial partnerships. He is currently co-chair of the National Research Council study of "Challenges for the Chemical Sciences." Professor Brown's research focuses on the modeling of transport processes in materials processing systems, especially solidification phenomena and non-Newtonian fluid mechanics.

He spoke on "A Chemical Engineering Approach to Modeling Microdefect Formation in Silicon Crystal Growth" and "Perspectives on the Evolution of Chemical Engineering." His latter talk focused on the emergence of chemical engineering as a premier science discipline that "interfaces with a vast array of fields combining physical, chemical, and biological sciences. Much of our academic research has shifted to analysis—both theoretical and experimental—and away from topics in synthesis, design, and process system development that were at the heart of explosive growth of the chemical industry. Where next? Two directions are emerging—one as a continuation of the engineering science paradigm and the other as we rediscover our heritage as modern process engineers.

Faculty Research

Professor Nicholas Peppas delivered the McCoy Distinguished Lecture



His lecture on “Intelligent Biopolymers in Protein Delivery, Molecular Imprinting and Micropatterning” showed how intelligent biomaterials can be used for a wide range of biomedical applications such as membranes for bioseparations, carriers for pH- or temperature-triggered drug delivery, materials in immunologic studies, and systems for feedback-control devices. The McCoy Award is given to the individual making the greatest contribution of the year to science at Purdue—the most prestigious research award given by the university.

Support Staff News

In the computing staff, **Brad Eisenhauer** replaced Jeff Clapper, and **Eric Pratt** was promoted to George Bailey’s assistant. **Chris Snively** replaced Brett Cowans in the NMR lab.



Professor **Osman Basaran**, **Bala Ambra-vaneswaran** (GE Plastics) and **Scott Phillips**, now a grad student at MIT, are the first to figure out the mathematics behind a problem plaguing machines that emit drops of liquid from a nozzle. Their findings have potentially broad applications, from improved inkjet printers to more precise pharmaceutical research. The new mathematical method drastically speeds up the time it takes to calculate the behavior of how drops form as they come out of a nozzle or faucet. Research that would take months with conventional techniques now can be performed within hours. The findings might be used to improve various manufacturing processes, and Basaran’s work has attracted the attention of several companies. A research paper about the work appeared in the December 18 issue of Physical Review Letters.



Professor **Gil U. Lee** was selected for the Federal Laboratory Consortium (FLC) Award for Excellence in Technology Transfer for work on “Single Molecule Biosensors.” See: www.fedlabs.org/. Scientists at the Naval Research Laboratory (NRL) have developed revolutionary biosensors, using atomic force microscopy to measure the force required to rupture specific molecular interactions between individual ligand-receptor molecules. They built on the insights gained to develop several new approaches to biological and chemical sensing that use force to detect an analyte. This force discrimination assay and associated biosensors have demonstrated superior sensitivity and selectivity compared to conventional sensors. The technology has been licensed in the fields of pharmaceutical drug discovery, clinical and non-clinical diagnostics for biological applications, and chemical sensors for applications in passive environmental monitoring, active process monitoring and portable gas monitoring.



Professor **Venkatasubramanian** launched a new company, Integrated Process Solutions, a first-of-its-kind funding by the Purdue Research Foundation’s Office of Technology Commercialization’s Trask Pre-Seed Capital Program. The company will create software designed to quickly and thoroughly analyze potential problems in manufacturing processes, helping plants stay in compliance with EPA and FDA regulations. Venkat says, “Our software will reduce the human error factor... provide high-quality analysis in less time, with more comprehensive results.” Venkat also won the CAST Director’s Award at the AIChE annual meeting. He also delivered six keynote addresses all over the world.

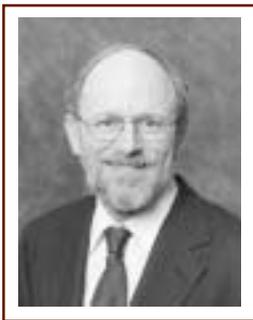
Staff News



Professor Jennifer Sinclair was named Head of Freshman Engineering--the first woman at Purdue to head an engineering department.

She received her BSChE from Purdue in 1983 and her doctorate in chemical engineering from Princeton in 1989. Professor Sinclair is an NSF Presidential Young Investigator, has won a college research award at Carnegie Mellon University where she previously served on the faculty, and several teaching awards. Her research focuses on phenomena related to dilute and dense-phase gas-solid flows such as particle/turbulence interaction, solid-phase turbulence, solids mixing and transport, particle-particle and particle-wall interactions, and heat transfer and chemical reactions in pneumatic conveying. Her work involves both modeling and experimentation using laser Doppler velocimetry. Professor Sinclair is an invited author of a book on circulating fluidized beds, contributing the chapter on hydrodynamic modeling. She is active in both the Fluidization and Fluid Mechanics areas of the American Institute of Chemical Engineers, and she is the Newsletter Editor for the International Particle Technology Forum. She also is on the Editorial Board for the Journal of Powder Technology.

Distinguished ranks grow...



Professor Wankat was named the Clifton L. Lovell Distinguished Professor of Chemical Engineering.

Lovell was an excellent educator and researcher with far-reaching insight. By today's standards, Lovell's educational contributions were monumental. He was the first to introduce unit operations, fluid mechanics, heat and mass transfer, and applied mathematics to the curriculum. Much of today's required undergraduate and graduate curriculum developed from his pioneering courses. Professor Wankat's interest in the principles and practice of teaching and learning makes him the ideal candidate to carry the Lovell name in his title. Along with his incorporation of his theories of teaching in the classes he teaches, both introductory and advanced, he has always created a course on teaching for graduate students who wish to go into academia. ChE 685, Educational Methods in Engineering, has been taught since 1983 (the text, *Teaching Engineering*, was published by McGraw-Hill in 1993 but is now available on the web through the School's web site). He also writes a regular column on teaching for the journal *Prism*, published by the American Society for Engineering Education. In his many papers, presentations and workshops he stresses "efficient, effective teaching" (of which more will soon be known when his latest book on the subject is published). He had an opportunity to exercise his ideas as Head of Freshman Engineering for five years. He is now also Head of the Division of Interdisciplinary Engineering Studies.

Three new faculty join the ChE School

Three new faculty joined us last fall. New courses they are teaching include micro-scale physical processing (Gil Lee), metabolic engineering (John Morgan), and molecular simulation and modeling (Kendall Thomson). The knowledge and enthusiasm they bring ensures the School will continue to educate students to be the best chemical engineers.

Gil Lee (pictured to the left) received his BSChE from Purdue (1987) and Ph.D. from Minnesota (1992). He was an ASEE Postdoctoral Fellow (1995), Chemistry Division, Naval Research Laboratory, D.C. His research interests are in nanometer scale science and its application in medicine and biotechnology; surface forces in macromolecular systems, and ultra-sensitive biosensors.



John Morgan received his BS (1992) and MS (1994) from Kansas, and his Ph.D. from Rice University (1999).

His research interests are in production of anti-cancer compounds from plant tissue culture, transfer of plant secondary metabolite pathways to microorganisms, development of plant oxygenases as biocatalysts, and metabolic flux analysis of photosynthesis.



Kendall Thompson's BS is from Wisconsin (1990), and his Ph.D. is from Minnesota (1999). His research is in the areas of adsorption and catalysis in zeolites;

ab Initio molecular dynamics; phase equilibria in porous media; statistical mechanics; critical phenomena, and computer simulation techniques.

The Graham Brothers of Chemical (& Electrical) Engineering

New Directions Companies Continue to provide Leadership to the ChE School

In October, New Directions representatives attended the annual two-day meeting on the Purdue campus.

William E. Smith, III (BSChE '69), Chairman, New Directions, and Executive Director Global Manufacturing Services, **Eli Lilly & Company**, chaired the meeting. As part of the annual meeting, members discussed curriculum initiatives, toured the facilities, and observed renovations to the undergraduate laboratory.

Successes were reported in each area (ABET re-accreditation, Design and Control, Undergrad Lab, Faculty Research Equipment, and Young Faculty Research teams) including conducting and completing a survey of recent graduates as part of the ABET process and **Anheuser-Busch's** successful preparation and presentation of an industrial-based design project for the Senior Design Course. Equipment needs of the undergraduate laboratory and for faculty were discussed and ideas generated about how to procure this equipment. There was continued discussion of ways to connect young-faculty with industry to broaden their experiences.

(continued on Page 7)



(left to right Donald Graham (formulation section of Plastics Technical Service), Eldon Graham (raw materials research of Physical Research Laboratory), Loren R. Graham (Special Projects training program). Picture courtesy of the 1955, "The Brinwell," The Dow Chemical's official newsletter)

“Our father was a high school science teacher. Each mealtime included a discussion about the latest discoveries in science, engineering, or medicine. Each of us always knew that we would attend Purdue and study engineering.”



Eldon Graham (BS '46) was employed as a chemical engineer in the Physical Research Laboratory, the premier research laboratory, of the Dow Chemical Company. He worked as a Group Leader and Division Leader in research on thermal properties, raw material research, foamed plastics, and rubber reinforced plastics.

He then became a member of the staff of the Corporate Director of Research and Development, where he was in pilot plant administration, and also was the Director for Human Resources for Research and Development for the Central Research Laboratories, the Midland Michigan location, Dow USA; and ultimately, Dow Corporate world-wide. (this was group of almost 5000 persons).

He was appointed by Dow to serve on a committee to help in the formation of an area college, Saginaw Valley College. It has become Saginaw Valley State University, a regional State University of the State of Michigan, with a present enrollment of almost 9,000 students.

After seven years of the committee work, he joined the Saginaw Valley State University in 1970, with the challenge of beginning an engineering program there. He regards this as the crowning achievement in his career. How many persons have the opportunity to help to start a college and then to start an engineering program from scratch? This involved designing the curriculum, designing the engineering building, fund raising to construct the building (all from private sources, companies, and foundations), supervising the construction, hiring the faculty, recruiting the students, and selecting the equipment for the laboratories. Also, involved was obtaining the State of Michigan approval for the engineering programs, and following through to obtain the National Accreditation for the programs from ABET. (Accrediting Board for Engineering and Technology).

He has held the positions of Professor, Department Chairman, Director of Engineering and Technology, and Assistant Dean of the College of Science, Engineer-

ing and Technology. Now, at age 74, he has retired from administrative duties and is enjoying teaching in his specialties of computer aided engineering, computer aided design, and solid modeling. Finally, he writes that the "real secret of any success that the Brothers Graham may have had is because of those Purdue women. I married Pauline "Vicky" Herd (H.E.'47) in 1947. We were college sweethearts all through school and are celebrating our 54th wedding anniversary."



Loren R. Graham (BS '55) is Professor of the History of Science in the Program in Science, Technology and Society at MIT. Professor Graham received his Ph.D. from Columbia University, and a Doctor of Letters (honoris causa) from Purdue University in 1986. He specializes in the history of science and the study of contemporary science and technology in Russia. His recent publications include *Science and the Soviet Social Order* (1990), *Science, Philosophy and Human Behavior in the Soviet Union* (1987), *Science in Russia and the Soviet Union: A Short History* (1993), *The Ghost of the Executed Engineer* (1993); *A Face in the Rock* (1995); and *What Have We Learned About Science and Technology from the Russian Experience?* (1998). His *Science, Philosophy and Science in the Soviet Union* was nominated for the National Book Award. In 1996 he received the George Sarton medal of History of Science Society and in 2000 he received the Folio Award of the Michigan Historical Society for his contributions to Michigan history. He is a fellow of the American Association for Advancement of Science, the American Academy of Arts and Sciences, a member of the American Philosophical Society, and a foreign member of the Russian Academy of Natural Science. He is married to Patrica Albjerg, also a Purdue graduate. Both have received honorary doctorates from Purdue.



In 1949 **Donald Graham** (BS '53) followed Robert and Eldon to Purdue, with the intention of majoring in Civil Engineering but soon saw the light. "inasmuch as my older brother Eldon was a chemical engineer that I admired greatly. I decided that was what I would strive for." The presence of older, more serious and mature war veterans in the classroom provided considerable competition for him; but, as he writes, "I was greatly assisted in my engineering degree quest by a wonderful wife, Phyllis, who worked for Earl Butz then head of Purdue's

agricultural school (they recently celebrated their 50th anniversary).

He started for Dow in Plastics Technical Service and found that he loved the work. As he advanced in Dow he held numerous posts in R&D management in Midland, with each new job entailing new industrial fields and products that expanded his areas of interest. He also served as a trustee on the FTC's Product Research Committee for five years. In 1975 he was named director of Research of Dow's Western Division research campus in Walnut Creek, California. He finished up his Dow days in 1986 as Vice President, Director of Operations at the corporate offices of Dow Chemical Latin America in Coral Gables, Florida.

"I have Purdue to thank for preparing me for an exciting, satisfying and rewarding career in industry."

The oldest, **Robert**, (EE '43) had a career in Electrical Engineering. He worked for Sylvania Electronics, GTE, and Varian Associates. At Varian, he was the Development and Production Manager for Klystron tubes used in radar systems. He received several award recognitions from the U.S. Department of Defense for his work in developing advanced radar systems for military aircraft.

New Directions continued from page 6

New Directions and the School welcomed **Fluor Corporation** as a new member this year. The School thanks all New Directions members and recognizes these partner companies for their volunteer support and their annual financial investments.

Air Products & Chemicals Company

Anheuser-Busch

BP

Dow Chemical Company

Dow Corning Corporation

DuPont

Eastman Chemical Company

Eastman Kodak Company

Eli Lilly and Company

Equistar Chemicals, L.P.

ExxoMobil Chemical Company

ExxonMobil Research & Engineering Company.

Fluor Corporation

GE

Honeywell

Kimberly-Clark Corporation

The Lubrizol Corporation

National Starch

Procter & Gamble Company

Reilly Industries

Shell Chemical Company

Sovereign Specialty Chemical Company

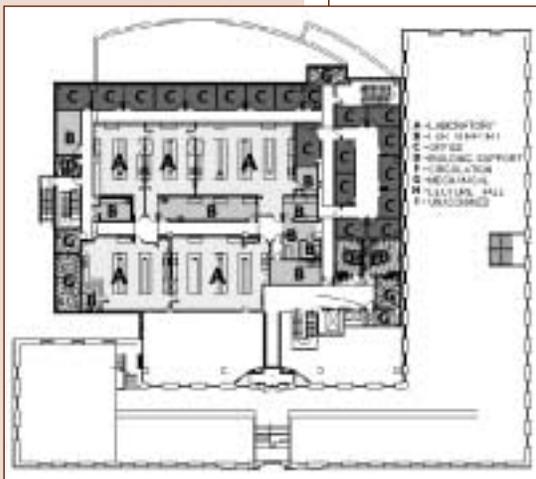
3M

Annual Support of the School of Chemical Engineering Continues to Increase

During the first ten months of the 2000-01 annual fund year, July 1, 2000, through April 30, 2001, alumni and friends of the School of Chemical Engineering made annual and capital gifts of more than \$3,638,000 with an additional \$135,000 in corporate matching. Of these gifts,

- \$230,000 are annual fund gifts from ChE alumni with generated the \$135,000 in corporate matching
- \$2,042,000 are gifts received which have been designated for capital projects
- \$1,364,000 are deferred gifts made by alumni through long-term estate planning programs

Annual fund gifts are important. These gifts generated by more than 950 ChE alumni (15 percent of all ChE alumni) support recurring expenses for high-priority areas in the School including purchases of equipment and instrumentation for the laboratories and advanced software for computer-based simulations, report writing software for text and graphical presentations, and mathematical modeling software used by ChE students at all educational levels.



First Floor drawing of the new Chemical Engineering addition.

Capital campaign report: moving towards our \$25,000,000 goal!

The School of Chemical Engineering is engaged in an important initiative to build an 85,000 sq. ft. addition on the Chemical Engineering Building and remodel the existing structure. The total cost of the project will be \$25 million. This is the lead project in a comprehensive Schools of Engineering new construction and renovation strategic plan.

The ChE addition will be five stories including a basement. To date, the School has received several major gifts and pledges from individual and corporate investors. These gifts and pledges total \$18 million. President Martin Jischke, who enthusiastically endorses the ChE project, recognizes the commitment ChE alumni have for the school, and he challenges all engineering alumni to step forward and support their schools. The School of Chemical Engineering is raising the bar for all the engineering schools at Purdue.

A leadership gift commitment from **Robert and Marilyn Forney** (both BSChE '47) of Unionville, Pennsylvania, are covering the engineering and design fees and major portion of the estimated \$20 million-plus enhancement costs (for more on the Forney's and their support for the Chemical Engineering program see page 2). Based on this support, several ChE alumni have invested in the campaign. Their support is driving the campaign forward rapidly.

The Capital Campaign Steering Committee is chaired by **Donald Orr**, (BSChE '61). Members of the committee include **Robert and Marilyn Forney** (honorary co-chairs), **Richard Grabham**, (BSChE '70), **Philip Krug**, (BSChE '52), **David Rea**, (BSChE '62), **James Schorr**, (BSChE '54), **Gerald Skidmore**, (BSChE '54), **William E. Smith, III**, (BSChE '69), and **William Wishlinski**, (BSChE '68).

Don Orr, Campaign Chairman, noted, "Committee members are deeply committed to the vision the School has for the future. We believe this capital project will strengthen the School's outstanding educational programs, offer students new and innovative learning environments, and provide much needed space for faculty and students to conduct leading research. It will offer the School opportunities to continue to recruit outstanding faculty and students who are the future leaders of the Chemical Engineering profession. I am proud to be a ChE alumnus and proud to be part of this effort which is the lead project on the Purdue campus for the Schools of Engineering."

The School is proud of the corporate support it has received including gifts and pledges from the **Dow Chemical Company Foundation**, **Dow Corning Foundation**, **Eli Lilly Company**, and **3M** which will provide the optic fiber cabling system for the addition. "This is a very exciting project for the School of Chemical Engineering. It is setting the pace for the Schools of Engineering, and it is encouraging many people at Purdue to think in different ways," noted **G. V. Reklaitis**, Professor and Head.

"This project will be a success because ChE alumni and corporate investors have provided leadership support and have stepped forward to make gifts at significant levels. I appreciate the enthusiasm ChE alumni have for the School and the financial support we have received," said Professor Reklaitis.

1944

Robert J. Formanek retired in 1984 as Vice President, Technical, of Dunlop Tire Corp., after a 40 year career in the tire industry. His work also involved numerous visits to plants in England, France, Germany and Japan. On a final assignment in Australia he set up a tire testing program in the Outback. He writes "I still enjoy traveling, golf, and visiting our two daughters and grandchildren in Massachusetts, and was pleased to participate in the Class of '44 Memorial program providing teaching assistance to the School."

1949

Charles H. Madge has written "The History of High Pressure Polyethylene at Union Carbide Corporation" (for more information he can be reached at 1508 Meadowbrook Rd., Palm Bay, FL, 32905-5007). He retired after more than 34 years in various aspects of the High Pressure Polyethylene business.

1954

James F. Schorr (BS '54, Hon. Doc. '87) was presented with the Engineering Alumni Association's (EEA) 2000 President's Lifetime Award, recognizing years of service to the University and the engineering profession.

1959

Norman T. Mills retired as president of ISCN, Inc., a consulting firm to the iron and steel industries.

1960

Bob Jurish was appointed senior process director with Doyen and Associates, Inc. of Chicago.

1969

William E. Smith III received the Engineering Alumni Association's (EEA) Service Award--given to alumni who exhibit exceptional service and loyalty to Purdue engineering, the University, the engineering profession and the community.

1974

Jay V. Ihlenfeld (BS '74, Ph.D., Wisconsin), has been appointed executive vice president of Sumitomo 3M Ltd., the company's largest international subsidiary.

Roger Mola is director of manufacturing for Fiber-Tech industries in Spokane, WA.

1977

Michael Ladisch (MS '74, Ph.D. '77) received the 2001 Ford Pharmaceuticals and Bioengineering Award of AIChE.

1979

Jeff J. Hollings is an area sales director for Eli Lilly and Co. in Birmingham, AL.

Gary A. Thoe is chief operating officer for Emmis Publishing in Indianapolis.

John McShane is now presently working in the Corporate Regulatory and Quality Sciences Department of Abbott Laboratories, his new address is 03QD Building AP6C, 100 Abbott Park Road, North Chicago, IL 60064

1981

Scott W. Huffer is a research and development flexible packaging engineer for Sonoco in Hartsville, SC.

1983

Jim Beaulieu is a supply chain director for Cognis Corporation in Cincinnati.

Thomas E. Delaney is president of Delaney Software Services Inc. in Houston.

Michael S. Gzybowski is counsel for the intellectual property team in the law firm of Baker & Daniels, Fort Wayne office.

1984

Jim Howard is a supply chain director for Cognis Corporation in Cincinnati.

Scholarship and Planned Gifts Are Important to the School of Chemical Engineering

Several alumni made major gifts to the School in the past year designated for special purposes. These gifts are an investment in the School and its future. Included among these special alumni investors are:

- **James H. Rust** (BSCHE '58, Ph.D. '65) who renewed his financial support for the James H. Rust Scholarship. This year, **Colleen Herstad** (BSCHE '01), was named the James H. Rust Scholar.
- **James F.** (BSCHE '54) and **Jane** (BSS '56) **Schorr** who support the James F. Schorr Chemical Engineering Scholarship Award.
- Kevin Henderson** (BSCHE '01) won for the 2000-01 academic year.
- **George A. Fisher, Jr.** (BSCHE '35), **James Rust** (BSCHE '58, Ph.D. '65), the late **Robert** (BSCHE '37 and HDR '64) and **Lucille Wheeler**, and **Robert and Rosemary Greenkorn**, friends of the School, invested in the School of Chemical Engineering through deferred gifts.

"We deeply appreciate the scholarship support and planned gifts made by ChE alumni and friends that are designated for the School of Chemical Engineering," said **Professor Reklaitis**. "These alumni and friends have made important investments in our students and in our future."

In Memoriam

William J. Asher ('56)

Richard W. Askern ('33)

Robert C. Becherer ('23)

James K. Beckett ('30)

Robert C. Bogott ('51)

Jim N. Bohn ('49)

Raymond J. Bossong ('40)

James D. Bowman ('38)

Lee S. Busch, Jr. ('39)

Hiram J. Coe, Jr. ('40)

Floyd E. Demmon ('48)

David E. Devlin ('58)

Donald Duane ('49)

Floyd Earl ('48)

Harold J. Edmon ('31)

Andrew Elmlinger Jr. ('40)

Richard D. Etherington ('50)

Everett B. Euchner ('48)

Richard F. Evard ('57)

John L. Federman ('49)

Clark Holloway ('37)

David F. Hunt ('60)

George D. Johnson ('42)

Ralph E. Kemp ('53)

Alumni News

1986



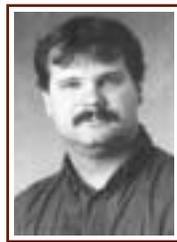
Yoon-Mo Koo (Ph.D. '86) is a professor in the Department of Biological Engineering at Inha University in Incheon, Korea, and Director, Center of Advanced Bioseparation Technology.

1987

William G. Henderson is a staff engineer for IT Corporation in Monroeville, PA.

Theodore J. Kobus III is an associate in the law firm of Marshall, Dennehy, Warner, Coleman & Goggin in Philadelphia.

1988



Christopher Bowman (BS, 88, Ph.D. '91), Gillespie Professor of Chemical Engineering and Professor of Dentistry at the University of Colorado, will be receiving the Allan P. Colburn Award of AIChE for exceptional research contributions under the age of 35. This is the highest recognition in our field.

Mary Toerne Halliwill After graduate training in pharmacology at Mayo Clinic Graduate School she is working at Johnson Space Center in Houston as a Senior Process Development Engineer at SpaceHab Inc., consulting to NASA. She writes "I'm developing processing systems for a future manned mission to Mars, and loving it!"

Euy Soo Lee (Ph.D. '88) is a professor at Dongguk University in Seoul, Korea.

1990

Candace D. Krautkramer, who is a senior research scientist for Kimberly Clark in Neenah, WI, completed her MS in Engineering Management.

Alec B. Scranton (Ph.D., '90) won the Joseph J. Martin Award of the American Society for Engineering Education. He is the Department Chairman at the University of Iowa.

1992



Kristi Anseth (BS '92, Ph.D. '94 [Colorado]), the Patten Associate Professor of Chemical Engineering at the University of Colorado, received the Materials Research

Society Young Investigator Award. She was also appointed a Howard Hughes Investigator, a tremendous recognition for young bioengineers as she is the first chemical engineer to receive this honor.

1994

Natalie Wisniewski ("Dr. Nat") completed a Ph.D. in Biomedical Engineering at Duke University. She'll be a guest scientist at the University of Botswana, then next January she plans to pursue a career in consulting with the firm McKinsey & Company in Pittsburgh, PA.

1995

Anish A. Tolia (Ph.D. '95) is a global product manager for Applied Materials Corporation in Santa Clara, CA.

Mathew K. Phillippo joined the law firm of Downs Rachlin & Martin PLLC in Brattleboro, VT.

Alumni News

1997

Brad L. Prickett is a lubrication engineer at ExxonMobil Corp. in St. Cloud, MN.

1998

Timothy R. Payton is the assistant plant manager for Valspar Corporation in Birmingham, AL.

1999

Steven M. Richter is a senior research engineer at Ashland Specialty Chemical Co. in Columbus, OH.

2000

Dennis Sopka is a manufacturing facilitator for Merck & Co. in West Point, PA.

Charles O. Knue ('43)

Charles Kropp ('56)

Ronald E. Kruse ('56)

Edgar W. Lines ('50)

Richard E. Mitchell ('44)

Dwight C. Muir ('30)

William F. Perkins ('28)

John G. Ploehn ('36)

Edward F. Repp ('35)

Henry R. Rossen ('46)

Carl F. Shedrick ('42)

Gavin Sinclair ('83)

Donald E. Snyder ('52)

Robert S. Springmier ('50)

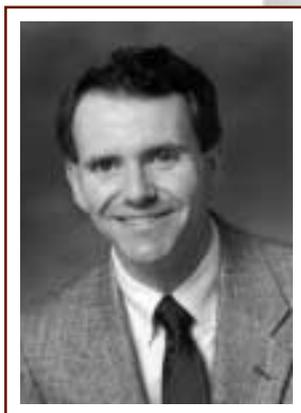
Neil E. Solgere ('51)

Charles E. Stoops, Jr. (Ph.D. '42)

Howard P. Voth ('48)

Robert C. Wheeler (BS '37, HDR 1964)

Gavin Sinclair Memorial Scholarship Established



An annual undergraduate chemical engineering scholarship was established this year in memory of **Dr. Gavin Sinclair**, a 1983 Purdue chemical engineering and industrial management graduate. This scholarship offers a financial award of \$2500 to a student majoring in chemical engineering at Purdue who exhibits broad interests and has faced challenge. The financial contributions which established this scholarship fund were given by Gavin's family and friends, many from the Purdue community (www.combination.com/sinclair.html).

Diagnosed with terminal cancer at the age of 24, Gavin overcame much adversity in his life; he was a

model of courage, perseverance and productivity. Prior to his death in December 2000, Gavin was a professor of Organizational, Leadership and Supervision and Agricultural Economics at Purdue. He also held a courtesy faculty appointment in the School of Chemical Engineering and was director of the chemical engineering CIPAC research consortium. His teaching drew on his fifteen years of industrial experience in acquisitions, product management, business management and marketing at Air Products and Chemicals and PPG Industries.

The first year recipient of the Gavin Sinclair Memorial Scholarship is **Chris Stevens**. The award was presented to Chris at the Senior Awards Banquet in April by Professor Jennifer Sinclair. Chris graduated in May 2001 with a GPA of 3.7 and accepted a position with Bristol Myers. During his years at Purdue, Chris demonstrated strong maturity, in addition to his many academic achievements. While in his junior year, Chris and his family faced the challenge of losing their home to a fire. Chris discussed in his scholarship essay how that trial impacted his life and perspective in many positive ways.

OChE 2000 Honorees (continued from page 2)



Robert Hannemann, M.D. (BSChE '52) is a visiting professor in our School and is Past President of the American Academy of Pediatrics. In 1962

he helped establish a pediatric department at Arnett Clinic and applied his engineering background to analyzing medical problems. As a visiting professor in 1969 he inaugurated an introductory course in biomedical engineering that he still teaches. His research is pediatric oriented and multidisciplinary. This has led to visiting professorship appointments in child psychology and biomedical engineering. He contributes to scientific and lay publications and was associate medical editor of *Caring for Your Baby and Young Child: Birth to Age 5*. He was named a Sagamore of the Wabash by Indiana Governor Frank O'Bannon last year.



Robert McNeeley (BSChE '67) is president of Reilly Industries, Inc., which he joined after graduation. Throughout his career, he has served as manager, Chemi-

cal Processing in 1974; production manager, 1977; and general manager, Chemical Division, 1981. He oversaw the expansion of Reilly's Indianapolis pyridine facility and construction of its pyridine plant in Hautrage, Belgium. In 1982, he was named vice president and general manager of the Chemical Division. In 1989, he was named executive vice president and became a member of Reilly Industries Worldwide Chief Operating Office. He was elected to the Board of Directors in 1990 and, that same year, he was named President of Reilly Industries, Inc. In 1997, he was elected to the Board of Directors of MRM Toluic Company, a joint venture with Mitsubishi Gas Chemical Company of Tokyo, Japan.

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