



University of Arkansas

# ChemE News

Ralph E. Martin Department of Chemical Engineering Alumni Newsletter

Vol. 4, No. 1

Fall 2005

## From the ChemE Department Head

It has been some time since our last newsletter, so we have a lot to report.

First the good news: as you can see by our front page story, our chemical engineering department has been endowed by a gift from Ralph Martin. This event has had—and will continue to have—a profound positive effect on our department. Thanks, Ralph!

And that is not all – Ansel and Virginia Condray endowed a professorship in chemical separations that has been filled by Dr. Jerry King. He is an internationally recognized expert in supercritical fluid applications, and is in the process of building a \$1 million lab at the UA research center. Also, Barrett and Peggy Duff endowed two doctoral fellowships in chemical engineering. Thanks to the Condrays and the Duffs!

Capping it off, the department faculty established the Arkansas Academy of Chemical Engineers (AAChE) to honor our outstanding graduates. Thirty graduates have formed the inaugural class and have pledged to support the department and future generations of chemical engineering students.

It has been a monumental year!

By the same token, I must report some sad news. Dr. Charles “Epi” Oxford passed away recently. He had a long history with the university and was a positive influence in the lives of many. Dr. Bob Tindall, another member of AAChE, recently passed away as well. Both will be deeply missed.

At this point, we look to the future. The last bit of good news is that our freshman enrollment is at a five-year high. The future is bright because we have a bright past that you as our graduates have built. Please keep us informed of your success.

## Ralph E. Martin Department of Chemical Engineering Dedicated



Just 100 years after the UA Department of Chemical Engineering was created, it was forever changed. On April 8 of this year, members of the university administration, dignitaries, and friends were present for what UA Chancellor John A. White described as “a defining moment in the chemical engineering program”—the dedication of the Ralph E. Martin Department of Chemical Engineering.

A long-time friend of the department, Ralph (BS ‘58, MS ‘60) culminated his support of UA chemical engineering with a \$5 million endowment. The largest gift in the history of the college was matched by an additional \$4.25 million from funds previously given to the UA by the Walton Family Charitable Support Foundation.

“I’m grateful for the education I received at the University of Arkansas and it means a lot to me to be able to give back to the institution that gave me so much,” Ralph explained.

The gift established eight faculty chairs and professorships, and four Martin Doctoral Academy Fellowships.

“Future historians will recognize this day as a defining moment in the UA chemical engineering program.”

In addition, the gift continues to enhance the Ralph E. Martin Academic Enrichment Fund, a broad-based endowment that Ralph established in 1995 to target special opportunities for ChemE students, teaching and research programs.

The endowment allows the department to be positioned to attract nationally recognized professors and researchers from around the world, in areas such as biomedical engineering and homeland security. An additional concentration in green engineering has also been added to the department’s research efforts.

“Ralph Martin’s longtime support and his latest gift will have a profound impact on all chemical engineering

students and professors for years to come,” said Ashok Saxena, dean of the college.

Ralph currently serves as chairman of the board of Petrofac, Inc., a Tyler, Texas-based single-source

supplier for the hydrocarbon-processing industry that he founded which has grown into an international corporation. He holds patents for the treatment of emulsions, the desalinization of brackish waters and the desalinization of crude oil.

See page three for photos of the dedication ceremony.



## Senior Teams Take Top Prizes in International Environmental Contest

Two teams of ChemE students took first place in their respective tasks at the 2005 International WERC competition held this spring at New Mexico State University in Las Cruces, N.M.

Each team had to provide a written report, an oral presentation to the judges, a poster representation of their work, and finally a fully functional bench scale model that they demonstrated on-site.


The *Semiconductor Team* task was to develop and demonstrate a cost-effective, energy-efficient treatment technology for semiconductor wastewater. The treated wastewater had to be of adequate quality to reuse in cooling towers at semiconductor facilities.

In addition to minimizing the volume of residual waste for disposal, the design was judged on the ease of implementation at an existing facility. The design was

required to meet all OSHA and EPA standards.

The *Sprouts Team* developed a simple and practical system to use calcium hypochlorite, or an equally efficient alternative, to treat sprout seeds. The solution had to be cost effective and take into account all aspects of chemical treatment. The team also had to take into consideration FDA and EPA guidelines, as well as the safety of plant workers.

The *Sprouts Team* won the USDA Award of Excellence, which gave them the opportunity to present their bench model to the USDA in Washington, D.C. this summer.

These activities are supported by the Ralph E. Martin Academic Enrichment Fund and the Kate Hadley and Grace Baker Academic Enrichment Fund. 



*The semiconductor team includes (from left): John Nivens, Thane Krile, Long Tran, and Adam Ekenseair. Seated are Mark Ferguson and Christina Haley.*



*The sprouts team with their awards (from left): Emily Damron, Ryan Wilson, Dr. Roy Penney (faculty advisor), Melissa Leach, Amy Seamans, Carrie Klein, Thomas Murphy and Jordan Mourot.*

## Arkansas Academy of Chemical Engineering Established This Spring



Spring 2005 marked the inaugural meeting of the Arkansas Academy of Chemical Engineering (AACHe). Composed of 30 graduates from the department who have distinguished themselves in their various professional careers, academy members will serve as advocates for the department and role models for future generations of UA chemical engineering graduates.


Charter members of the AACHe are (from left, front row): John Bushkuhl ('58), Michael Zaleski ('64), William Myers ('56, '58), Becky Womack Keogh ('79),

Kay Watson Tait ('83, '84), Wyndham Cook ('75), Michael Mourot ('76, '77), and Robert Maddox ('48).

Second row: Ralph Baker ('52), Bob Cross ('57), Barrett Duff ('49, '50), Jean Neuberger III ('69), George Combs ('59, PhD '64), Jim Turpin ('60, 61), Tom Beasley ('53), Bill Baker ('63), Ron Glass ('65).

Back row: Charles 'Epi' Oxford ('44), R.R. 'Barney' Baxter ('48), Louis Sheppard ('57), Ansel Condray ('64), James Stice ('49), Bob Tindall ('57), Ralph Martin ('58, '60), Jerry Havens ('61), and Butch Brotherton ('67).

Not pictured are Ray Adam ('46), Ron Haney ('70), P. Michael Harris ('73), and Nick Nahas ('63).

On a sad note, two of the inaugural academy members pictured here have passed away—Charles 'Epi' Oxford and Bob Tindall. Both men will be deeply missed. 

## Department Joins UA Space Center

This spring, the ChemE department joined the departments of biological sciences, chemistry and biochemistry, geosciences, mechanical engineering and physics as a partner in the Arkansas Center for Space and Planetary Sciences.

Established in 2000, the Center conducts research on astronomy and planetary science and the geology and biology of planet, asteroid and comet surfaces. In addition, researchers design space research instruments and plan exploration missions of the solar system.

ChemE professor and Space Center faculty member Rick Ulrich, who is well known as an astronomical photographer, will teach a graduate-level course in planetary atmospheres through the Center. 🧪

# ChemE Faculty News



**Dr. Greg Thoma**, the Bates Teaching Professor in Chemical Engineering, has been promoted to the rank of full professor. He has been a member of the ChemE faculty since 1994.

Thanks to the generosity of Ralph E. Martin, eight faculty chairs have been created in the department. Four chairs have been filled with currently faculty:

▲ Bob Beitle was named to the Louis Owen Professorship in Green Chemical Process Design and Development.

▲ Jerry Havens was named to the Maurice E. Barker Chair in Chemical Process Safety and Environmental Fate of Chemicals.

▲ Tom Spicer was named to the Ralph E. Martin Leadership Chair in Chemical Engineering.

▲ Jim Turpin was named to the Jim L. Turpin Professorship in Chemical and Biochemical Separations.

The remaining professorships and chairs include the:

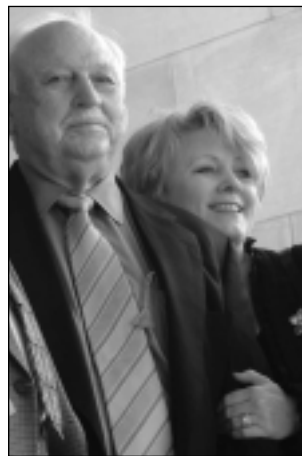
-Ralph E. Martin Professorship in Chemical Engineering,

-Charles W. Oxford Professorship in Emerging Technologies, and

-Robert E. Babcock, Sr. Professorship in Chemical Process Safety and Environmental Fate of Chemicals.

An international search is currently underway for the Ross E. Martin Chair in Biomedical Engineering. 🧪

## Dedication of the Ralph E. Martin Department of Chemical Engineering



*Far left: Ralph and Kathy Martin are surrounded by family at the unveiling of the Ralph E. Martin Department of Chemical Engineering entrance.*

*Left: Ralph and Kathy enjoy the entertainment provided by the Marching Razorback Band and Razorback cheer team.*

Photos: Russell Cothren, University Relations

*Right: Big Red joins Ralph, Kathy and their grandchildren during the dedication festivities.*

*Far right: Ralph visits with Amy Seamans, Melissa Leach and other students. Referring to the students' trip to the WERC competition (see page 2) during the dedication ceremony, Ralph said, "That's what makes this all worthwhile."*



## Alumni Establish Jim Turpin Endowed Scholarship in Honor of Professor



Approximately 30 former ChemE students have raised more than \$25,000 to establish the Jim Turpin Endowed Scholarship in the department. Corporate sponsorship for the scholarship was provided by Lion Oil and Arkansas Eastman.

Spearheaded by Melissa Myrick and Karen Clausen, the group

created the scholarship as a means to thank Turpin for his tireless efforts in helping students, before and after graduation.

Turpin has received more than 30 UA and national teaching and service awards during his tenure. The awards are due in part to his philosophy of teaching being much more of “who one is” to the student rather than “what one does in the classroom”

Please contact the department at 479.575.4951 for more information on how you can be a participant in this honor. 🧪

## Two Receive 2005 Distinguished Mentor Awards

Jim Townley and Gary Ford, both science teachers from Fort Smith Southside High School, were selected as 2005 Distinguished High School Mentors for the department. Townley, a former advanced placement (AP) chemistry teacher, and Ford, an advanced placement biology teacher, received their awards at the department’s spring banquet. Townley also received the award in 2002.

Created by the department in 2002, the Distinguished High School Mentor Award recognizes outstanding high school teachers who have shown an



*Gary Ford*



*Jim Townley*

ability to motivate students to strive for higher achievement in the sciences. Nominations for the honor are made by current ChemE students and the final selection is determined by the AIChE student chapter council.

## King Joins Faculty

Jerry King has joined the faculty, filling the Ansel and Virginia Condray Endowed Professorship in Biochemical and



Chemical Separations. An internationally recognized leader in separations research, King also researches green processing using environmentally friendly solvents.

Prior to joining the ChemE faculty, King was program manager/research scientist in the supercritical fluid facility at the Los Alamos National Laboratory.



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