# ChemE Brigham Young University

# Newsletter 2005



#### Welcome from the Chair

Greetings from the Chemical Engineering Department. We hope that all is well with you and your families.

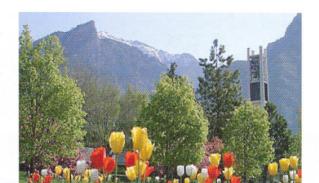
It has been said that change is the only constant. That is as true in our department as anywhere. After a world-class career of teaching and rocket-propellant research Dr. Merrill Beckstead is retiring. Dr. Beckstead's service and example have blessed the lives of hundreds of students over a BYU career of nearly thirty years. He has served for many years as assistant department chair, and in this role has contributed immensely to the department's well being. This work has most often been behind the scenes; yet has had enormous impact. His analytical and objective voice in department decisions has helped us steer in wise directions as the department has grown and developed over the years. He will be greatly missed.

We are pleased to welcome Dr. Randy Lewis as the newest member of our faculty. Dr. Lewis received his B.S. degree from BYU in 1989 and his Ph.D. from MIT in 1995. He has taught at Oklahoma State University for the past eleven years. He has been very active in student affairs, particularly in AIChE at both the local and national level. His area of research expertise is bioprocess engineering including bioreactor design, biomaterials, and biomass conversion to fuels. Randy and his wife Cynthia (also a BYU Chemical Engineering graduate) are the parents of seven children.

As most of you are aware, Dr. Harb has accepted an assignment to serve as Associate Dean with the new Dean of the College, Alan Parkinson. (Dr. Parkinson is from the Mechanical Engineering Department and served as an associate dean for about two years prior to his appointment as Dean of the College.) Dr. Harb's appointment has opened another faculty position in our department which we are preparing to fill.

We appreciate your continued support of the department. We encourage you to be active in our alumni activities (see information in this newsletter), and to continue to help us bless the lives of our students through scholarship donations and job opportunities.

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#### Department Spotlights



**Dr. Merrill Beckstead** has announced that he will retire this summer. He plans to keep pursuing his research, but will not teach any more courses.

The nineteenth Annual 2005 ACERC Conference was held in February. The theme of the conference was "A Tribute to Dr. L. Douglas Smoot". Dr. Smoot was honored for his 40 years of accomplishments at Brigham Young University. He served as dean of the college, chair of the department, and founded ACERC.





**Dr. Vincent Wilding** received a Karl G. Maeser Excellence in Teaching Award during the University Conference in August 2004. He was one of three recipients for this prestigious award at BYU. This award honors faculty for outstanding teaching accomplishments and is made possible by the generosity of the Karl G. Maeser Scholarship Society.



Congratulations to **Dr. John Harb**, who is one of the new Associate Deans for the College of Engineering and Technology as of May 1, 2005.

**Dr. Larry Baxter** has recently been awarded the Bernard Lewis Fellowship for his sustainable energy and biomass combustion research.



During the past year **Dr. Calvin Bartholomew** marked his 32nd year on the faculty. He worked with two postdoctoral fellows, four graduate and 16 undergraduate students on six different research projects related to Fischer-Tropsch synthesis, fuel cells, and detection of biological agents. His group has also been working on microkinetic modeling and improving experimental methods and statistical design of experiments. Dr. Bartholomew, a postdoc and two students delivered oral presentations at the 19th North American Catalysis Society Meeting held May 2005 in Philadelphia. Dr. B also worked hard on the revision of his book with Dr. Robert Farrauto of Engelhard on Fundamentals of Industrial Catalysts; this textbook and handbook has been expanded to about 900 pages and is probably the most complete, definitive single-volume treatment of the fundamentals and practice of catalyst science and technology. His book should be available from John Wiley in late August or early September.



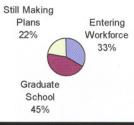
A symposium was held June 13-14 of this year as part of the American Chemical Society, Division of Colloid and Surface Sciences Meeting at Clarkson University (Potsdam, New York) to honor the life-time professional achievements of Professor Bartholomew. During the two-day symposium, 23 distinguished colleagues, friends, and former students delivered technical presentations addressing state-of-the-art research, focusing on nano science related to heterogeneous catalysis. Alumni of BYU Chemical Engineering in attendance were Dr. Richard Pannell of

and Richard Pannell

focusing on nano science related to heterogeneous catalysis. Alumni of BYU Chemical Engineering in attendance were Dr. Richard Pannell of Exxon, Dr. Edward Sughrue of Conoco Phillips, Dr. John Eng of Dupont, and (almost) Dr. George Huber of the University of Wisconsin. At a dinner held in his honor, colleagues, friends, and former students presented a personal/professional sketch of Professor Bartholomew's life, delivered tributes, and presented him with an award recognizing his contributions.

Where is the class of 2005 going?

This year's graduating senior class has big plans for the future. Of the fifty-one graduates, twenty-three have committed to graduate school, seveteen have accepted employment offers, and as of the end of April eleven were still making plans. Wherever life takes them, we wish them all the best of luck!





### 2004 Homecoming Banquet - A Big Hit

"Here, let me check my last answer before class!" For many, this commonly heard phase came in the Clyde Building just before a Kinetics Class. This past October, alumni and friends of BYU's ChE Department were able to renew old memories, share stories, and make new friends at the annual alumni banquet in the Clyde Building. After a sumptuous dinner, the new alumni board was introduced by Vince Memmott, we had the privilege of hearing from Elder Ronald A. Rasband, of the Seventy and past CEO of Huntsman Chemical Company and we enjoyed the magic and advice of Jeff Lindsay, Patent Agent and amateur Magician extraordinaire, who received this year's Outstanding Alumnus award. Overall, those attending had a great time renewing old friendships, feeling the spirit, and being entertained!



Jeff Lindsay was given the 2004 Outstanding Alumnus Award.

Dr. Jeff Lindsay (PhD '85) was announced as this year's Outstanding Alumnus award winner. Jeff has had a very full and productive career (see JeffLindsay.com) since leaving BYU having served as a Professor, Bishop, Patent Agent, and working with his wife Kendra to organize and direct a unique Charter school that has become a model for the local school district. We want to congratulate Jeff on his illustrious career and personal life.

The night's event was capped by a rare treat of hearing from Elder Ronald Rasband of the Seventy and past CEO of Huntsman Chemical Company talk about his experience as the "First" employee of Huntsman Chemicals. He recanted how he went from being a senior business student at the UofU to selling condo's in Denver to negotiating the purchase of the first polystyrene plant in Ohio to watching the company grow into a multi-national corporation with operations in 25 countries.

Next year we hope to see you all at the alumni banquet and have heard that one graduating class is planning their 10 year reunion in conjunction with this event. We welcome other classes to do the same. Until next year,

Your Alumni Board



This year's Homecoming Banquet will be held on Friday, October 14, 2005. The Homecoming Football game will be on Saturday against Colorado State



# **AIChE News**

The BYU AIChE student chapter has been involved with several activities throughout the year. To start off the year the club's officers and several faculty members attended the Annual AIChE Conference in Austin, Texas. The annual Sub-for-Santa Auction was held in December. After receiving generous donations from local merchants, the AIChE group raised over \$3,000 that helped several local families have a merry Christmas. A group of 10-15 students went to the Rocky Mountain Regional Student Conference that was held at UC Berkeley in March. The club has had a successful and productive year. The 2005-2006 AIChE officers are excited for the new school year to start.



#### Alumni Board Chairman's Corner

We are excited to introduce the new BYU Chemical Engineering Alumni Society. There is a vast source of energy out there in the form of BYU Chemical Engineering graduates. The Society's goal is to put that energy to work for a good cause. The BYU Chemical Engineering Alumni Society is in the process of organizing to help the Department, to help individual graduates and to provide service to the world around us.

In order to meet these goals we have organized the following committees with the respective chairman for each committee:

Membership – Greg Kunz Communication – Nicole Stewart Department Support – Gary Pocock Networking/Career Development – Roger McCarty Service – Clyde Witham Financial/Budget – Jim Workman

\*See the web address: http://www.et.byu.edu/cheme/alumni\_new/society.php for a list of the descriptions.

There are BYU Chemical Engineering Graduates all over the country and even the world in traditional and non-traditional jobs. We have a vast network of resources with which to help the Department, each other and those around us.

One objective is to support the BYU Chemical Engineering Department. This support can take many forms. To begin with the Society is taking over the annual Chemical Engineering Alumni Homecoming Dinner. Our eventual goal is to develop funding sources to provide scholarships and resources to support the Department and its students.

We also want to make it easier to keep in touch with each other and to highlight accomplishments. The Society wants to provide a way for those looking for jobs and those looking for employees have an opportunity to match those needs. We encourage communication and even reunions for each class to renew the camaraderie we developed as students.

One of the most exciting goals is to find ways that we can use our talents and resources to serve. We are working with the Church to attempt to find ways that we could help the Humanitarian Department and the Missionary Department. We are working with the World Health Organization and with private humanitarian organizations. The biggest challenge is to identify the needs. We would like to act as a clearing house so that our members could identify the needs that may match their talents, resources and even any connections they may be able to employ. We will undoubtedly start small but I suspect that once we get started, the effort will "snowball" and develop into a great opportunity to serve. You can help the service committee identify needs and with the diverse talents among our alumni, I'm sure that we can find a way to meet many of the needs.

Please join with us in our efforts to support the department, one another and the world. Join the Society at the membership level that works for you. Volunteer to work on one of the committees. With your help we can focus our considerable energy and become a great force for good.

#### Volunteer to be a Class Representative

To find out more about becoming a class rep, visit the BYU Chemical Engineering Web Page at http://www.byu.edu/cheme/

## Join the Alumni Society

Greetings fellow alumni, faculty, and students! A survey during the last BYU ChE Annual Banquet revealed that many current students, faculty, and alumni desire to participate in the recently organized alumni society. For this purpose, the BYU Chemical Engineering Alumni Society Board is excited to offer the following charter memberships into the BYU Chemical Engineering Alumni Society and their associated dues:

Benefactor: >\$250 Patron: \$100 - \$250

Supporting Member: \$50 - \$99 Associate Member: \$25 - \$49 Affiliate Member: \$5 - \$24

All donations for charter membership are requested to be sent to the Chemical Engineering Department at BYU, 350 Clyde Building, Provo, Utah 84602. All checks or money orders should be made payable to the BYU Chemical Engineering Alumni Society. If you desire a receipt for a tax-deductible donation or to be placed on one of the six committees (Communication, Dept. Support, Financial/Budget, Membership, Networking/Career Development, or Service), please make a written request with your donation. The entrusted donations will be placed in a non-profit organizational account to be used for the alumni society's activities that benefit the general membership (e.g., newsletters, costs associated with annual society dinners, networking and employment activities, service projects, student scholarships, etc.). As a board, we are excited to present to you the opportunity for membership into a society that unites BYU alumni/faculty/students and their talents for the greater good of the membership.