

# CHE

# PIPELINE

## CHEMICAL ENGINEERING DEPARTMENT NEWSLETTER ROSE-HULMAN INSTITUTE OF TECHNOLOGY

FALL 2001

ISSUE 1

### CHAIRMAN'S CORNER HOSSEIN HARIRI

Welcome to the first issue of CHE Pipeline. In April 2001 we had a lunch gathering with a number of alumni in Indianapolis. This was a successful event where the faculty, staff and alumni, who work in Indy or nearby, had a chance to meet and chat. Hopefully, The CHE Pipeline will enhance the communication between the Chemical Engineering Department and alumni wherever they are.



You should have heard that Rose-Hulman and the Chemical Engineering Department are once again ranked number one by the U.S. News and World

Report among the colleges and universities that offer B.S. and M.S. degrees.

You may have heard that our department is undergoing a major change as a number of faculty have retired. In the Fall of 2001, out of eight faculty members, only three have been in the department before 1998. We expect one of these three to retire at the end of 2001

Three faculty members Drs. Mark Anklam, Mike Misovich and Atanas Serbezov joined us after Dr. Noel Moore retired and Drs. William Baratuci and Carolyn Lee left the department in 1998. Drs. Jerry Caskey and Carl Abegg retired in May 2001. Dr. David Miller joined us in the Fall 2001 and Sharon

Sauer will join us in January 2002, after finishing her Ph.D. at Rice University. Dr. Stuart Leipziger is planning to retire at the end of 2001 academic year. (See faculty news in this issue for more details and highlights of the department retirement party.)

In October 2000 we had an ABET visitation. Every six years ABET (Accreditation Board for Engineering and Technology) performs an in-depth review of what we are doing to evaluate and assess our program. Starting in the year 2000, ABET requires engineering departments such as ours, that seek ABET accreditation, to have stated goals and objectives, curriculum and processes that ensure the achievement of these objectives, and a system of ongoing evaluation that demonstrates achievement of these objectives and uses the results to improve the effectiveness of the program. After considerable review and discussions we prepared our goals as follows:

Instill in our graduates attributes appropriate to the chemical engineering profession, life-long learning and a thoughtful and responsible life. Each Chemical Engineering graduate is expected to:

- A. have a working knowledge of chemical engineering science;
- B. have the technical skills for chemical engineering practice in industry or for pursuing advanced graduate studies;

- C. be able to communicate effectively in oral, written and visual forms;
- D. be able to work effectively in teams and understand the team characteristics;
- E. have an awareness of contemporary, non-technical and global issues;
- F. have an awareness and understanding of professional ethics;
- G. have a facility for independent learning and be prepared for continued professional development.

We have written a number of performance criteria that define what the students will be able to do if the goal is achieved. The essence of ABET review is to find out how well you have done what you said you were going to do. For the evaluation and assessment of our program we have used classroom evaluations, the results of Fundamentals of Engineering Exam, and feedback from seniors as they graduate, alumni, employers and Board of Advisors. Every year we send survey questionnaires to 1<sup>st</sup> year alumni and their employers and 5<sup>th</sup> year alumni. Our 17-member Board of Advisors includes alumni and non-alumni members from different industries as our stakeholders. We receive their feedback by contacting them by email as well as holding meetings. We had a meeting of our Board of Advisors on March 12, 2001 on campus.

As many of you may know we made numerous changes in our curriculum two years ago. The material and energy balances sequence has been restructured. Now we teach CHE201-Conservation Principles and Balances and CHE202-Basic Chemical Process Calculations. In the first course we have material as well as energy balance on simple systems with no reactions. In addition to mass and energy, students study conservation of other extensive properties such as momentum and charge. The second course involves material and energy balances on more elaborate systems with multiple units, recycle and bypass and reactions. We believe that the new sequence

helps students understand conservation principles better and specifically integrate material and energy balances.

Other changes to the curriculum include restructuring of Physical Chemistry I and II into a new PChem course for chemical engineering students. This new course eliminates the overlaps that previously existed between PChem and Thermo courses. Also, the required organic chemistry courses for graduation was reduced from 3 (12 credit hours) to 2 (8 credit hours). Instead of the organic and physical chemistry courses, four credits of statistics are required and four credits of free electives are added. Therefore, the total credit hours required for graduation stayed unchanged. Also, the technical electives have been redefined. Instead of Math/Science and technical electives, students should take two technical courses in an area of concentration approved by the academic advisor. We encourage students to take their design and free electives in the same area of concentration. This will give an opportunity to students to take total of six courses (24 credit hours or 15% of the technical courses required for graduation) in a focus area they choose. We have provided packages for students in this regard that may be viewed at our website (Undergraduate Information—curriculum information.)

We established an achievement award in 1997 and named it in honor of Dr. Noel Moore's 30 years of service to the Chemical Engineering Department. The Noel E. Moore Achievement Award is given to sophomore, junior and senior students at the beginning of each quarter based on the approved criteria considering the activities of the students in the previous quarter. The criteria are: improvement in class work, leadership and performance. The award recognizes students who take the initiative in learning and demonstrate a strong desire to learn.

## Questionnaire

Since this is the first issue of our newsletter, we have provided a questionnaire within this issue to get your feedback on several items of interest that have been discussed in the section "About the Newsletter". Please send us your feedback and also feel free to contact us and let us know what we should be doing and how we should adapt our program to the changes in the profession. Rose Chemical Engineering Alumni are our most valuable resources. Thank you for your support.

### **ABOUT THE NEWSLETTER**

The idea of a department newsletter is not a new idea. A number of engineering departments at Rose already have them. You are also familiar with the "Echoes" which is distributed to all alumni. In an attempt to better inform and allow more interactions between the Chemical Engineering department, students, and alumni, this newsletter has been prepared. The newsletter is intended to include a description of what is happening in the department and information about chemical engineering alumni. We hope that the newsletter serves as an avenue for interaction between alumni and the department. We would like to hear more about what alumni feel is most important in our program. Faculty will benefit from this interaction between the department and alumni to learn about the devices they might use in the classroom to simulate real world problems. Communication is the key to the continued success of the Chemical Engineering department, and this newsletter intends to promote that.

The newsletter will include a section entitled, "Chair's Corner", in which the head of the chemical engineering department, will deliver his thoughts and concerns regarding the department.

Students should be our ultimate focus, and so a student section entitled, "Student News", will provide a window into the lives of current students. Various topics may be contemplated, from AIChE, to projects relating to senior design, to student coop experience in industry, to the trials and tribulations we know all too well of simply being a student at Rose-Hulman.

One proposed section entitled, "Alumni News and Issues", would target ways in which alumni could participate with faculty to promote and refine the chemical engineering curriculum, as well as develop programs aimed at heightened contact between students and alumni at Rose-Hulman. The ultimate goal is the preparedness of graduates to assume positions of leadership and responsibility unmatched by other leading chemical engineering programs throughout the country. Current issues proposed are roundtable discussions at Homecoming and Review Board positions with the newsletter. Another area of interest could be alumni resources to promote chemical engineering laboratories.

Another proposed section entitled, "Alumni Spotlight", will detail the current careers of alumni and their responsibilities. The plan is that in future issues of the newsletter, a number of alumni will be featured indicating what areas they are currently pursuing and their achievements.

The alumni spotlight will serve a dual purpose. It will provide other alumni with information relating to career paths and serve as an avenue for students to get in touch with alumni who are working in an area of particular interest to them. The purpose is to provide a sense of what a chemical engineering degree from Rose-Hulman is worth, as well as proof that associated talents and hard work are essential components for success. Alumni have chosen various ways to utilize their

CHE degree from Rose-Hulman, and this section will showcase how diverse the careers are in our "field".

Each of you are encouraged to take a moment and look at the survey attached. Please complete the required information and return it to the chemical engineering department at your earliest convenience. Your input will shape the character and content of this newsletter. If you have any additional questions or would like to provide assistance of another kind not specifically listed, please call the chemical engineering department at 812-877-8381 or send an email to [m.h.hariri@rose-hulman.edu](mailto:m.h.hariri@rose-hulman.edu).

### **MARK ANKLAM - PROFILE**

Mark Anklam joined the department in the Fall of 1998 from Unilever Research in the United Kingdom. He has been teaching courses here in reactor design, materials science, and bioseparations among others. His interests include surfactant and colloid science, polymers, and separations with environmental or pharmaceutical applications. His research areas include emulsion formation and stability, chromatographic separations, and polymer-surfactant interactions. While at Rose he has been a consultant for Heritage Research Group and Pfizer. He is the faculty advisor for the Omega Chi Epsilon student chapter and for the ISPE (International Society for Pharmaceutical Engineering) student chapter.

### **MICHAEL MISOVICH - PROFILE**

Dr. Michael Misovich joined the chemical engineering department at Rose-Hulman in 1998. Prior to that, he was a member of the chemical engineering department at Villanova University in suburban Philadelphia. He has also had experience teaching in the pulp and paper science program at the University of Wisconsin -- Stevens Point, teaching at Michigan State University, and working in the production

and research facilities of the former Nalco Chemical Company in Chicago. He is a native of Chicago.

Since coming to Rose, Dr. Misovich has taught Conservation Principles and Balances and Basic Chemical Process Calculations (the new "Meatballs" I and II), Process Design I and II, Thermo I, Polymers, Air Pollution Control, Chem.E. Lab, and Career Prep. In the lab, he has a reputation with students for coming up with weird twists on the experiments such as: dumping ice cubes into the agitated tank heat transfer experiment or making the friction factor experiment into a study of flow through parallel conduits. He has had experience teaching Thermo II, Fluids, Mass Transfer, Process Control, Statistics, and Computer Science at other institutions.

Dr. Misovich's main research interests are in phase equilibrium and equations of state as well as educational methods and assessment. He has authored articles and publications on the use of spreadsheets in chemical engineering education. With the help of Rose students and their knowledge of Maple programming, he hopes to continue progress toward the goal of making the world safe for chemical engineers by eliminating the calculation of fugacity from phase equilibrium!

### **ATANAS SERBEZOV - PROFILE**

Atanas Serbezov joined the department in the fall of 1998. He brings with him several years of industrial experience at Praxair and Honeywell. His expertise is in the areas of Transport Phenomena, Process Control, and Process Modeling. His latest research interests are in gas adsorption and vapor-liquid equilibria. He is an industrial consultant for Praxair and Eli Lilly. Atanas is the faculty advisor of the AIChE Student Chapter in the department and the Vice President of the Terre Haute local chapter of AIChE.

## CHE Adopts ASPEN as the Preferred Tool for Incorporating Process Modeling and Simulation across the Chemical Engineering Curriculum

In recent years, process simulators have become standard tools for process design and optimization in the chemical process industry. Even entry-level chemical engineers are expected to be proficient with modeling and simulation tools.

The Chemical Engineering Department is providing this competitive advantage to its students by incorporating process modeling and simulation across the curriculum. ASPEN, the leading supplier of modeling and simulation tools in the chemical industry, has been standardized as the preferred tool for this initiative.

Currently, students are exposed to the modeling and simulation concepts as early as their sophomore year in CHE 201-Conservation Principles and Balances (Meat Balls) course. Aspen Plus is incorporated in the CHE 401-Mass Transfer II, CHE 406 and CHE 407-Capstone Design, and in some experiments in the Unit Operations Laboratory sequence. Aspen economic module is used in the CHE 407-Capstone Design. Plans include the incorporation of Aspen Plus in CHE 414-Heat Transfer and CHE 404-Kinetics, as well as the incorporation of Aspen Properties in CHE 304-Thermodynamics II.

These efforts of the department are generously supported by Eli Lilly, which provides training for faculty, graduate and undergraduate students at its Technical Center in Indianapolis.

## STUDENT NEWS



### Solar Phantom competes in American Solar Challenge 2001—finishes 8th.

Rose-Hulman Institute of Technology's Solar Phantom Team competed in American Solar Challenge 2001. Brad Berron, team leader, is a Senior Chemical Engineering major.

Starting in Chicago and finishing in Los Angeles, the team of Rose-Hulman students raced Solar Phantom VI against a field of 29 other schools and organizations. The race followed old Route 66 over 2300 miles and 11 days, making it the longest race in solar car racing history. Not only was it the longest, but over some of the most difficult and varying terrain. Beginning with the plains of northern Illinois, the race went through the hills of Missouri and Oklahoma and lead into the mountains of New Mexico and Arizona before finishing across the Mojave Desert and into Claremont, California.

The Solar Phantom Team finished 8<sup>th</sup> overall in the American Solar Challenge. The race is broken into three legs, and the total elapsed time over the three legs determines finishing position. Awards are given at the end of each stage, and the Solar Phantom team received recognition for a 3<sup>rd</sup> place finish over the first leg and for sportsmanship over the long second leg.

The team is satisfied with their performance over the trip. The team had to design and build an excellent car to compete with other schools of varying budgets. Solar Phantom VI was built and raced in the American Solar Challenge for approximately \$80,000, while other competitor's budgets ranged

from \$40,000 to \$2.5 million. The biggest deficit the team faced was varying solar cell technology. The Solar Phantom team purchased a 14.5% efficient array while some competitors could afford arrays up to 25% efficient at a cost of over \$200,000. Work is currently underway to secure a donation of a more efficient solar array for future races.

The team is back home after nearly a month on the road. Team members are already starting back to work in preparation for the next race.

### FACULTY NEWS

Drs. Carl Abegg and Jerry Caskey retired at the end of the academic year 2000-01. We had a retirement party at Pino's May 22, 2001. Our retirees were "honored" with a few appropriate gifts.

All who remember the unique singing talents of Dr. Abegg will be happy to hear that he received a CD of his favorite "crooner", Rudy Vale, which was presented, complete with a megaphone, so he could practice. Of course, Joan Abegg hasn't spoken to any of us since.....

Martha Caskey was happy with at least one of Jerry's gifts, a stopwatch. He is to use it to keep from talking for fifty minutes at a stretch. You might remember his famous statement that "all professors are programmed to talk for 50 minutes, no matter what the subject, and they will do just that."

Jerry received some useful, if not very attractive, new glasses. (See picture section.) With these "glasses" he will look like he is awake and listening to Martha, even if he is really asleep—he also received a bottle of No-Doz! It was noted at the dinner that Jerry is not really a quiet, calm individual, as most people believe—he is actually asleep most of the time.

To commemorate their years of service to the Chemical Engineering Department, Drs. Abegg and Caskey were presented beautiful Lenox Crystal elephants.

### ALUMNI CONTACT

Ryan Willis (1998) has taken on the role of the alumni contact person for "CHE Pipeline". Ryan has recently finished his third year of law school at the University of Dayton and is pursuing a career in patent law. Ryan's e-mail address is [uspatentattorney@yahoo.com](mailto:uspatentattorney@yahoo.com) and his home phone number is (937) 836-5933 if you have any questions, information to be submitted, or comments regarding the handling of alumni affairs of "CHE Pipeline."

#### What's a CHE degree from Rose-Hulman worth? By Ryan Willis

As an undergraduate student at Rose-Hulman, I was continually amazed by the prestigious positions Rose-Hulman alumni held in such a short period of years after graduation. It made me think, "What is a Rose-Hulman chemical engineering degree worth?" Is the correct answer priceless, or the cost of tuition plus books (roughly \$100,000), or is it simply the cost of the paper on which your degree is printed, 45¢. Implicit within the previous question is that there is a correct answer. What is your chemical engineering degree worth to you and to prospective employers? Its value may be worth a significant amount, varying only upon how you apply it.

I realize that a majority of graduates of the CHE program continue their respective careers in the traditional chemical fields. Education at Rose-Hulman prepares the mind for the rigors of not only the traditional chemical engineering positions, but all other careers in which problem solving is an asset. Seeing that my own career path is straying from those of traditional CHE graduates, I

was intrigued by the number of alumni that have chosen non-traditional careers. The range, if you can call it that, encompasses doctors, farmers, high school teachers, lawyers, and church pastors just to name a few. Each of these graduates has persevered in adapting their CHE background and applying it successfully to the fullest. What is/was their CHE degree worth? Does it now change your mind regarding what your CHE degree is worth from Rose-Hulman?

Obviously, each of us has different interests within the CHE field reflected in the design electives in which we enrolled or in the areas in CHE in which we have pursued. What is truly remarkable, at least to me, is the fact that in an era in which continuing education is a given, Rose-Hulman CHE graduates flourish because this degree is far from obsolete. Unlike many degrees which are offered today, a CHE degree involves something integrated in every aspect of human existence; problem solving.

I notice graduates from other schools who have been out of school for ten years or more sometimes struggling with simple concepts because in college they received a piece of paper instead of a way of thinking. A CHE degree from Rose-Hulman says to those familiar with Rose, "You **are** the best person for the job". But, if recent graduates from Rose are not able to keep up the intellectual and problem solving standards set by their predecessors, how long is this statement going to be accurate?

I distinctively remember President Samuel Hulbert emphasizing to me the importance of giving back to Rose. At the time, I wondered if his interests were in Rose-Hulman in general or the students. What I have come to realize is that my degree is somewhat like a publicly traded stock; it goes up and down with the market. Put in simple English terms, your degree is only as good as you are, and only as good as the most recent Rose-Hulman CHE graduates.

The next question is, "How do I influence "the market?" Giving back to Rose-Hulman influences the market because it helps maintain the status of your degree as "the best". I want to encourage alumni to give back in more ways than simply money. Giving back can be as simple as coming back for the afternoon to meet with CHE students and give them some perspective regarding your career. It can also be as simple as participating in a structured discussion with faculty. Industry changes very quickly some times, and alumni are in positions to see where these changes are going, and have a duty to make suggestion to the faculty at Rose on how better to educate students. This obviously does not mean that we should instruct faculty how to teach, just encouraging them what to teach. Giving back ultimately means making a concerted effort to maintain the academic excellence of Rose-Hulman no matter what it takes.

The Chemical Engineering Department is continually in need of alumni support. Communication between industry and academia ensures smooth transitions for recent graduates. Among the areas in which alumni can have direct impact are, sitting on advisory committees, working to raise money for the Unit Operations Laboratory, organizing homecoming events, raising money for the department in general, or participating in the roundtable discussion.

Whatever level of support you choose, the students and faculty sincerely appreciate your support and insight. Looking back on my experience at Rose, I realize that if it were not for some outstanding alumni and their support, my education would have been mediocre at best. Your support will be reflected in the accolades of recent CHE graduates and the continued value of your degree. I would like to conclude by simply saying, "Thank you to every CHE alumnus proceeding me." because of you, my CHE degree is priceless.

## ALUMNI SPOTLIGHT

Each issue of "CHE Pipeline" will include a section entitled, "Alumni Spotlight". This section will focus on the various skills and accomplishments of Rose CHE graduates. This section will give fellow CHE alumni some perspective into the careers of their peers.

In this first issue of "CHE Pipeline", the alumni were selected by the alumni contact in keeping with the theme, "What is a Rose-Hulman CHE degree worth". In the future when alumni submit biographical information for the Alumni Spotlight, the chemical engineering department would like to have a committee to decide on which CHE alumni to spotlight in the respective editions.

If you would be interested in participating on the committee or would like to send in your biographical information since leaving Rose, please contact Hossein Hariri or Ryan Willis by e-mail.

Continuing with the theme "What is a Rose-Hulman Chemical Engineering degree worth?" here are a few alumni who put to the test this very question, and in so doing have created quite a name for themselves in their respective professions.

### John Phipps

John Phipps was born on a five-generation farm in east-central Illinois. He graduated with honors from Rose-Hulman in 1970 with a BS in CHE and a minor in economics. The next five years John spent aboard the USS Seahorse, a fast attack submarine, as a nuclear engineering officer. John returned home to the family farm in 1975 and developed it into 1300 acres in Edgar County. John has taught at Danville Area Community College, and his civic duties include Lions Club, FmHA County Committee, Ag Extension Council,

Republican Precinct Committeeman, and CPR instructor. He is also the past president of the Edgar County Farm Bureau, past member of the Illinois Commission on Atomic Energy, a former Director of Illini FS, President of the Edgar County Board of Health, and served on the Illinois Corn Marketing Board and National Corn Congress. John is active in the United Methodist Church serving as a certified lay speaker and choir director. John's writing skills are exemplified in his humor and commentary appearing monthly in Farm Journal and Top Producer magazines as a Contributing Editor. John is married to Jan Sonneveldt and he has two grown sons both of whom are involved in engineering.

### Kent Erb

Our next alumnus graduated from Rose-Hulman in 1977 fully planning to enter the engineering fields. However, during Kent Erb's first two years at Rose, Dr. Hulbert encouraged Kent to explore bioengineering. From this encouragement, Kent took a couple of classes in biology at Indiana State. As a result of these experiences, Kent decided to pursue medical school after graduating from Rose-Hulman and performed his residency at St. Vincent Hospital in Indianapolis.

He has been practicing now for over fifteen years and found medicine to be both challenging and rewarding. Kent reflected on his career choice by saying that he has never regretted his decision to get his chemical engineering degree at Rose because the academic discipline has been essential in his career.

The most interesting concept of all is that people are more impressed with Kent's degree from Rose-Hulman than his medical degree. Kent concluded by saying that being a Rose-Hulman graduate brings instantaneous credibility because of the great reputation it continues to maintain.



### Joseph Sereno

Our next alumnus is involved in a field in which many Rose-Hulman students can identify with, prayer. Joseph Sereno graduated in 1982 from Rose-Hulman and after graduation went to work at a paper mill. But within three years, Joseph found himself at seminary where he would spend four years and find his true calling as a minister.

During this time he studied for two master's degrees and recalls the famous phrase, "Give a man a fish and you feed him for a day, teach a man how to fish and you feed him for a lifetime." Joseph analogized the teachings of fishing to his education at Rose as the teaching of a lifetime and describes it as essential to his early success in life. He notes that though he no longer utilizes the engineering know-how gained from Rose, he would not trade his time at Rose for anything.

Joseph recalls faculty at Rose that helped shape his life like Sam Hite, Noel Moore, Jerry Caskey, and Ronald Artigue. Joseph succeeded with or without Rose-Hulman, but having a Rose-Hulman degree is something so valuable because it can be adapted to fit any occupation.

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The previous CHE alumni prove that a chemical engineering degree from Rose-Hulman provides a foundation for any career because it signifies more than mere academic accomplishments; it signifies a monumental life accomplishment. The often referred line of, "Never underestimate the heart of a champion", can easily be adapted to fit all CHE alumni. "Never underestimate the power of a Rose-Hulman chemical engineering degree"!

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### Percopo Fellowship Helps Rose-Hulman Grads Pursue Harvard MBA

Rose-Hulman alumni interested in pursuing an MBA from Harvard University can receive financial assistance by qualifying for a fellowship created by Rose-Hulman alumnus Michael Percopo ('43).

One Rose-Hulman alumnus has already benefitted from the Michael W. Percopo and Catharine W. Percopo Fellowship Fund. The amount of monetary support will be based on the student's financial need.

"Early in my career, I realized that an engineering education combined with an MBA would be important to a successful career in business," Percopo said. "I want to help other Rose-Hulman graduates whose goal is to earn an MBA from Harvard."

Percopo used his chemical engineering degree from Rose-Hulman along with his Harvard MBA to become a successful international business executive. He retired as president of Squibb International. He currently serves as president of MWP Associates International. "I strongly encourage any alumnus who has at least three years of management experience to consider applying for the fellowship," stated Percopo, who is a member of the Rose-Hulman Board of Trustees.

Interested alumni should contact the Harvard MBA Financial Aid Services, Baker Library, Soldiers Field, Boston, MA 02163 or via phone at 617-495-6640.

## ALUMNI NEWS

**Bill Schwenker (1968)** has taken a job with Master Builders Technologies as the operations manager at the company's facility in Santo Andre, Sao Paulo, Brazil. MDT is the world's largest producer of construction chemicals. He still lives in the greater Sao Paulo area, and he and his wife, Wanda, run an English School.

**Dale R. Kuehl (1978)** reports the birth of his first son, Evan Richard.

**Kevin A. Giles (1981)** now works full time with his Internet marketing company, bottom-line-solutions.com. He lives in Plano, Texas, with his wife Renee and sons.

**David Jennings (1983)** has been promoted to senior associate with BSA Design.

**Duane Reinholt (1986)** married Hee Sook Noh in February and had their first child in November. Duane has been promoted to director of plant engineering with International Steel Services, Pittsburgh, Pennsylvania.

**John Puckett (1988)** announces the birth of Hannah Grace, born last fall.

**Fred Queary (1990)** reports the birth of his third daughter, Charis Ruth, born last December. Fred has been promoted to senior production specialist for the Dow Chemical Co.

**Steve Wilhelmy (1991)** has switched jobs and been promoted. He is the director of manufacturing and quality at QRS Diagnostic, a start-up medical company in Minneapolis, Minnesota.

**Dustin DuBois (1992)** has joined the law firm of Barnes & Thornburg in Indianapolis as an associate. He practices in the area of intellectual property.

**Christopher Reed (1992)** reports the birth of a new son, Noah Reed, born last fall. Christopher is a project manager for Eli Lilly in Indianapolis.

**Gregory Roberts (1997)** married Michele Renee Mann last August.

**Bill Morphew (1999)** has been transferred to Santa Cruz, Bolivia, and promoted to subgerente de operaciones at an ADM joint venture.

## IN MEMORIUM

**Joseph J. O'Connell (1943)** died February, 12, 2001. He was a resident of Albuquerque, New Mexico.

**Glenn M. Garrett (1975)** died March 24, 2001. He is survived by his wife Kathy. He was director of sales and technical services for Engelhard Corp., and resided in Houston, Texas at the time of his death.

## FUTURE ALUMNI NEWS

This initial issue of "CHE Pipeline" does not include the most up-to-date information regarding alumni news due to this information being derived solely from information that has been supplied to the Alumni Office. The hope is that any further information regarding promotions, births, marriages, or deaths will be forwarded to the alumni contact for "CHE Pipeline". In this way, "CHE Pipeline" will be able to offer an avenue for more explicit, informative and beneficial news regarding alumni happenings. Any information gathered by "CHE Pipeline" will be forwarded to the Alumni Office at Rose-Hulman unless otherwise requested.

When submitting any information, comments, or questions via e-mail, please use a Microsoft Word or WordPerfect format if possible.

# CHE PICTURE GALLERY

## RETIREMENT PARTY FOR JERRY AND CARL



The "honorees" with Hossein  
Jerry should really take off those glasses...



Is Jerry awake? With these  
glasses who knows?



"It's an elephant! "



What's going on here--  
bunny ears for the boss?

## More Pictures



Is this any way to treat a prof?  
(Dr. Abegg volunteered for the Pie-A-Prof  
fund raiser for Alpha Chi Sigma.  
Yes-- Mike Zavatsky did graduate!)



CHE today



Not sure what year this was  
taken.



We believe these are from Rose Show -1982  
Can anyone verify this?

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