



THE REACTOR

OSU CHEMICAL, BIOLOGICAL, AND ENVIRONMENTAL ENGINEERING STUDENT ORGANIZATION

OSU students represent club at AIChE National Conference

In November, forty Oregon State CBEE students traveled to Philadelphia for the American Institute of Chemical Engineers (AIChE) National Conference. Despite flight delays and a lost passport, the conference was an exciting and educational experience for all who attended. AIChE was celebrating its 100th anniversary, and over 100 schools attended the event. At the conference, students had the opportunity to attend student chapter workshops and career information sessions, network with other students and professionals, participate in various competitions, and enjoy the city of Philadelphia. There were also several planned social events, including the Centennial Conference Bash and a photo scavenger hunt.

A highlight of the conference was the Chem-E-Car competition. Team "Beaver Evolution," consisting of Paul Dornath, Nikole Wilkins, Ian Braly, and Matt Yoder, placed first at the AIChE Regional Conference last year. In the competition, a chemi-



cally-powered car must carry a specified cargo load for a specified distance. However, the teams are not given the specifications until one hour before their run. The OSU team used the combination of a hydrogen fuel cell with an iodine clock to time their reaction. "Beaver Evolution"

ended up finishing 24th out of 35 teams but had perhaps the strongest cheering squad thanks to the other OSU students.

Another competition was the Student Poster Competition in which about 200 undergraduates presented their research. Chemical engineering senior Warren Gray won first place for his work with OSU professor Dr. Joe McGuire. His project was "Characterization of recombinant therapeutic protein adsorption at the air-water interface in the presence of selected surfactant species."

Five other students received awards at the conference, and OSU was given the Outstanding Student Chapter Award for the fourth year in a row (for a complete list of all student award winner, see next page). Traveling to the conference would not have been possible without the contributions of the Columbia-Pacific Chapter of AIChE, Oregon State University College of Engineering, and the OSU Foundation, and the club is very thankful for their generosity.

Highlights:

- ◆ National Conference Recap
- ◆ Regional Conference Recap
- ◆ Nalco/Monsanto Sponsored Meetings
- ◆ CBEE Game Night
- ◆ Relay for Life
- ◆ Officer Elections
- ◆ Spring 2009 Calendar



Chem-E-Car team "Beaver Evolution" prepares before the competition

Award winners at AICHE National Conference

OSU AICHE chapter
Outstanding Student Chapter Award
(4th straight year)

Nikole Wilkins, Paul Dornath, Ian Braly,
& Matt Yoder
ChemE Car Competition finalists

Warren Gray
First Place in Student Poster Competition

Kari Varin
John J. McKetta Undergraduate Scholarship

Anna Putnam
Donald and Milred Othmer National Scholarship

Paul Dornath
Donald Othmer Sophomore
Academic Excellence Award

Bader Aboalsaud
Freshman Recognition Award

Staci Van Norman
Minority Affairs Scholarship

Congratulations to everyone for their
outstanding achievements!

NALCO and Monsanto sponsor CBEE club meetings & provide career information

Nalco has been previously active in recruiting chemical, biological, and environmental engineering students for jobs and internships, and Monsanto is looking to increase its recruitment. However, this year, both companies went a step further and made a generous donation to the CBEE student club to help fund the travel to professional conferences. Without their support, it would have been very difficult to send such large numbers of students to represent Oregon State. To thank them for their gift, the CBEE student club invited each company to give a talk at a general meeting.

Nalco representatives made the visit on February 10th and began the meeting by introducing the wide-reaching involvement of their company. While many people have not heard of Nalco before, they work closely with many of the large manufacturers in American and globally. Their primary focus is in integrated water treatment and process improvement, and they have more than 11,000 employees worldwide. The representatives stressed the company's commitment to sustainabil-

ity, given that one of their major responsibilities is to improve process efficiency.

Monsanto representatives presented at the April 2nd general meeting. Their company focuses using modern biotechnology to improve agricultural sustainability and production - "to produce more with less." They stressed that they are a research-intensive company and that they received

2nd place in *Science's* Top Biotech Employer Worldwide. Monsanto is a company of 20,000 employees, and some of their most popular products include Roundup Ready crops, which are intolerant to the Roundup herbicide and allow for improved

weed control, and Vistive soybeans, which greatly reduce trans-fatty acids in processed soybean oil. However,

Monsanto is involved with several controversial issues, both presently and in the past, and several students spoke of their concerns after the presentation.

Without the support of Nalco and Monsanto, the club would not have had the same opportunities at the Regional Conference. We also thank them for the opportunity to hear more about their companies.



Club sponsors Game Night to start off the term



Canadian Excursion: OSU dominates at 2009 AIChE Regional Conference

Sixteen Oregon State CBEE members recently crossed the border to attend the 2009 American Institute of Chemical Engineers (AIChE) Regional Conference. The Pacific Northwest region includes schools from Oregon, Washington, Idaho, Montana, and Vancouver, BC. The conference was hosted by the University of British Columbia in Vancouver from February 27 to March 1. The regional conference was a great opportunity for students to meet their local peers in addition to qualify for competitions at the 2009 National Conference in Nashville.

Once again, the OSU Chem-E-Car team had a successful competition, winning 2nd place, \$100 cash, and a trip to the national competition in Nashville. The team was made up of seven freshman: Kristina Schmunk, Nick Kraaz, Lars Bowman, Joe Alston, Andrew Qi, Jack Gilchrist, and Michael Stanfill. Despite an unexpected outdoor and uphill course, the OSU team proved to be the most consistent of all teams competing. The car was powered by hydrogen fuel cells and controlled by hydrochloric acid circuit degradation.



Seven freshman made up the Chem-E-Car team, which achieved second place

Three OSU students also competed in the paper competition, a great opportunity for students to share the research they have performed. Ryan Stillwell, a third-year chemical engineering

student, presented the paper "Microstrip Wiring Analysis and Heatsinking for X-Ray Microcalorimeter Arrays." A second paper, "Detection of Leaching Organic Migrants From Polyethylene Terephthalate and Polycarbonate Water Bottles," was presented by Paul Dornath, a third-year chemical engineering student. Finally, third-year bioengineering student Maddie Midgett presented her paper, "Chronic Electrophysical and Behavioral Response in Rats due to Cerebral Ischemic Stroke in the Motor Cortex."



The 16 OSU students who attended the Regional Conference at the University of British Columbia

Out of ten participants, Maddie Midgett was awarded first place for her paper, along with \$200 cash and a chance to present at the national conference in Nashville next fall. Maddie is the 3rd OSU winner of the paper competition in the last 15 years (Neda Vukmirovic in 1998 and Amanda Cordes in 2005 were the previous winners).

The OSU students who attended also had an opportunity to network with other students and professionals. They also had the chance to explore downtown Vancouver and the beautiful University of British Columbia campus. The club is looking forward to representing OSU again next fall in Nashville at the National Conference.



BIOE junior Maddie Midgett won first place in the paper competition

The OSU students who attended also had an opportunity to network with other students and professionals. They also had the chance to explore downtown Vancouver and the beautiful University of British Columbia campus. The club is looking forward to representing OSU again next fall in Nashville at the National Conference.

Join the CBEE Relay for Life Team!

Join the CBEE Department as we participate in the OSU Relay for Life, May 15-May 16! Relay for Life is a fundraising event for the American Cancer Society and involves walking around the MU Quad with hundreds of other OSU students to celebrate cancer survivors, remember loved ones lost to cancer, and fight back by raising money.

To sign up, visit http://main.acsevents.org/site/TR?pg=entry&fr_id=18269 and follow these steps:

- 1) Click "sign up"
- 2) Click "Join a Team"
- 3) Enter our team name, which is "The Young CBEEs", and click "search for a team"
- 4) A box should pop up below with the team name and the name Torri Rinker. Click "join" on the right side
- 5) Choose "Participant Registration - Credit Card"
- 6) Click "next" at the bottom of the page and continue to enter personal information and pay the \$10 registration fee.

Once you have signed up, you can begin to raise money by sending emails to friends and family. Remember, the students compete against the faculty, so the more money we make and the more laps we walk, the more of a chance we have to pie the professors after the relay!

This is a great opportunity to meet people in our department while supporting an awesome cause. Please join us as we Relay for Life!

Torri Rinker
CBEE Club Co-President

Engineering... the lighter side

A boy was crossing the road one day when a frog called out to him and said, "If you kiss me, I'll turn into a beautiful princess." The boy bent over, picked up the frog, and put it in his pocket.

The frog spoke again and said, "If you kiss me and turn me back into a beautiful princess, I will stay with you for one week." The boy took the frog out of his pocket, smiled at it, and returned it to his pocket.

The frog then cried out, "If you kiss me and turn me back into a beautiful princess, I'll stay with you and do ANYTHING you want!" Again the boy took the frog out, smiled at it, and put it back into his pocket. Finally, the frog asked, "What is it? I've told you I'm a beautiful princess, that I'll stay with you for a week, and do ANYTHING you want. Why won't you kiss me?"

The boy said, "Look, I'm an engineering major. I don't have time for girlfriends, but a talking frog is really cool."

The CBEE Student Club wants YOU to be a 2009-2010 Officer!

Executive Positions:

- Presidents (1 ChE, 1 BioE, 1 EnvE)
- Vice Presidents (1 ChE, 1 BioE, 1 EnvE)
- (each will take on position of one of the following:
VP of Professional Relations, VP of Communications, or VP of Departmental Relations)
- Secretary
- Treasurer

General Officers:

- Publications Editor/Historian
- AIChE Conference Coordinator
- Social Coordinator
- Fundraising Coordinator
- Business Manager
- Website Monitor
- K-12 Outreach Coordinator

Class Representatives:

- After election, class reps will team with a general officer to fill the "assistant/in-training" positions*
- Freshman class reps (to be decided by freshman in the fall, most likely 2 per major)
 - Sophomore class reps (1 EnvE, 1 BioE, 1 ChE)
 - Junior class reps (1 EnvE, 1 BioE, 1 ChE)
 - Senior class reps (1 EnvE, 1 BioE, 1 ChE)

CBEE Spring 2009 Event Calendar

	Monday	Tuesday	Wednesday	Thursday	Friday
April	13	14	15 General Meeting: 5 pm in GLSN 200 Professor Research and Election Intro	16	17
	20	21 Earth Day Booth MU Quad, 11 am-3 pm <i>Blye Viny</i> /Movie KEC 1001, 7 pm	22 Officer Meeting: 5 pm in GLSN 200	23	24
	27	28	29 General Meeting: 5 pm in GLSN 200 Officer Elections	30	1 Election Ballots Due
May	4	5 Election Results (sent out via email) Discovery Days LaSells, 9 am-2 pm	6 Officer Meeting: 5 pm in GLSN 200 Discovery Days LaSells, 9 am-2 pm	7 Grad School Prep: (Tentative date) Helping juniors start the application process	8 Outreach Event Adams Elementary, 6-8 pm
	11	12	13	14 Chevron Presentation Dan Euhus—Biofuels 6:30 pm Free pizza!	15 Engineering Open House 11 am-3 pm Relay for Life MU Quad
	18	19	20 General Meeting: Beer Brewing OSU Pilot Plant	21	22
	25	26	27 Officer Meeting: 5 pm in GLSN 200	28	29
June	1	2	3	4	5 CBEE End of the Year BBQ 6 pm at Avery Park
	8	9	10	11	12 CBEE Graduation 6 pm in Milam Auditorium