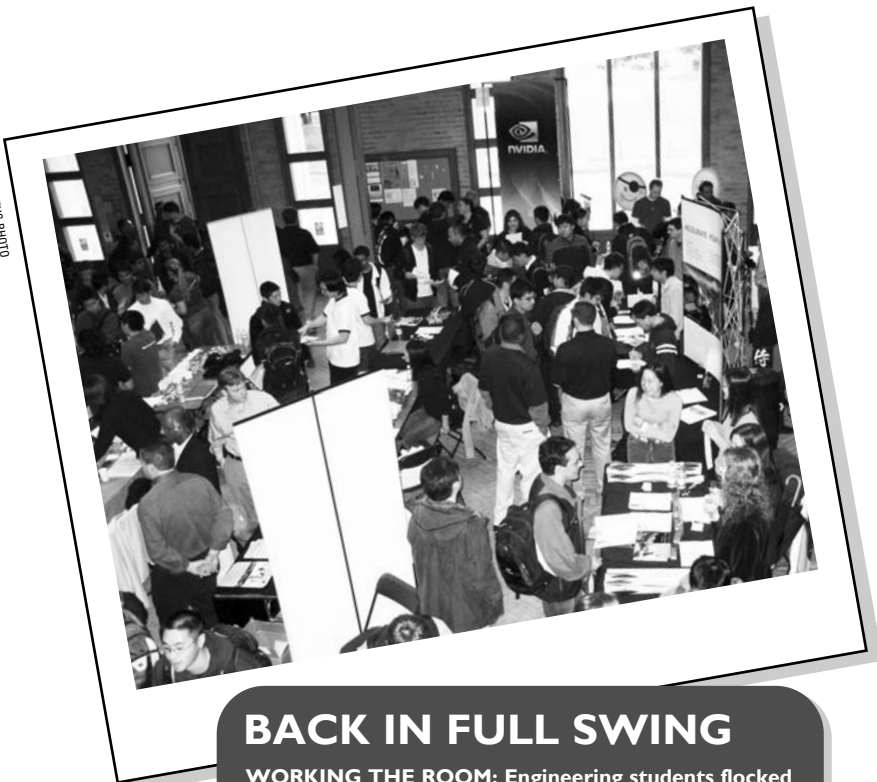


engineeringNews

FEBRUARY 1, 2008 VOL. 78, NO. 25

CELESTE ALTUS PHOTO



BACK IN FULL SWING

WORKING THE ROOM: Engineering students flocked to the 2008 EECS Internship Open House held last week in the Hearst Memorial Mining Building. They schmoozed with recruiters from dozens of high-profile companies like Pixar, Google, Lockheed Martin and Charles Schwab. If you missed the event, there is still a chance to meet recruiters from top companies at upcoming infosessions. See page 3.

A silent epidemic

BioE alum inspires hep-B awareness

PHOTO COURTESY OF DENIS LAM



PASSIONATE: Denis Lam made Berkeley pay attention to a public health crisis.

It affects one out of 10 Asians and Pacific Islanders (APIs), and most of them don't even know they have it. It is chronic hepatitis B, which causes 80 percent of

liver cancer and is a leading cause of premature death from liver failure.

And because the illness is asymptomatic, most carriers remain unaware and pass it along through generations.

As he graduates, Denis Lam (B.S.'07 BioE) leaves behind him one of the first chapters of the Asian Liver Center at any college in America. Lam, 22, has pioneered hep-B awareness, particularly how it affects the API population, in Berkeley.

Lam had just received his college acceptance

Continued on page 2

POP QUIZ



What is the biggest myth about engineers?



Jun Tucay
CEE sophomore

"That we're all squares and we study all the time."



Vincent Lee
EECS sophomore

"We always have a calculator. I don't have one on me!"



Wendy Kobayashi
ME junior

"That it's all about math. Everyone says you must be good at math, but there are a lot of concepts behind it."



Josh Silver
Undeclared freshman

"That we can sometimes function in society."

Epidemic

Continued from page 1

letter in 2002 when he attended a health conference at the Asian Liver Center at Stanford. What he learned about the high risk of APIs for contracting hep-B so shocked him that he took it on as a personal cause. But he never saw himself as a crusader.

"I wouldn't ever have imagined this would happen! People gave me insight and ideas. Basically it's education that is needed to tackle this problem," he says. "The disease is completely preventable."

Peter Swing of the AsianWeek Foundation, which supports the San Francisco Hep-B Free campaign, has followed Lam's work at Berkeley.

"For someone of such a young age, he's a remarkable person," Swing says. "The hep-B cause inspired him and provided a synthesis between his major, BioE, and his work."

After entering Berkeley in 2003, Lam wanted to spread the word about hep-B. He and his fellow students created a DeCal class, classes initiated, designed and taught by Berkeley students.

They then formed a student organization at Berkeley called Team HBV. The team aims to advance the goals of the Asian Liver Center at college campuses across the United States to help fight hepatitis B and liver cancer worldwide.

Last semester Team HBV championed a bill that passed the student senate, confirming UC Berkeley's support of the group and its awareness mission.

Lam was also the public relations director for ASUC while at Berkeley and interned at California Pacific Medical Center Liver Transplant Clinic to perform hepatitis-related research.

Lam graduated in December and is now working with the SF Hep B Free initiative. He's considering medical school but has other projects in the works, such as working with Batiq.org, a Web 2.0 company that matches teens with mentors in education and business.

Given his varied interests, Lam keeps his options open. He gives this advice to his brother Patrick, a Berkeley sophomore, and other young people who feel familial or social pressure to keep rigid career timelines.

"Don't sacrifice one passion for another," he says. "Combine them. Build your own portfolio."



<http://jrc.berkeley.edu>

SUDOKU

Enter digits from 1 to 9 into the blank spaces. Every row must contain one of each digit. So must every column, as must every 3x3 square. The answer will appear in the next issue. Below is the answer to last issue's puzzle.

2	5	4	1	8	6	3	9	7
1	7	3	9	2	5	8	4	6
6	8	9	7	4	3	1	2	5
5	2	6	3	1	4	9	7	8
4	9	7	2	5	8	6	1	3
8	3	1	6	7	9	4	5	2
9	1	5	8	6	2	7	3	4
7	4	8	5	3	1	2	6	9
3	6	2	4	9	7	5	8	1

1				2		6		
6					1	9		
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					2	5		4
3	1		4		8		9	7
2		4	1					
5			9			4		8
		1	8					3
		3		7				9

Puzzle by websudoku.com

Calling the Class of 2008

Senior Gift Campaign kicks off February 14

Now is the time to make an enduring contribution to the College of Engineering.

The Senior Gift Campaign aims to raise crucial income for the College's Annual Fund, which directly supports student programs and resources such as the Center for Entrepreneurship & Technology, the Society of Women Engineers, the Concrete Canoe Team, CalSol, student scholarships and state-of-the-art teaching facilities and labs.

The Engineering Senior Gift Committee will host its annual kick-off party from 4:30 to 6:30 p.m. Thursday, February 14, at the Bechtel Engineering Center, Rooms 120 A, B, & C.

Seniors who donate to the Senior Gift Campaign before February 14 will be entered in a raffle to win a \$150 gift certificate to Best Buy. Stop by to meet the participants, eat free pizza, get your complimentary gift, enter the raffle and find out if you've won the grand prize!

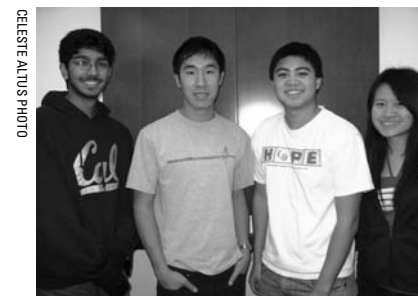
One of the campaign's primary goals is to inspire the class of 2008 to participate. Last year, 36 percent of graduating seniors contributed, while the 2008 committee's goal is to achieve a record-breaking 50 percent participation rate.

The 2008 Senior Gift committee

members include ME freshman Siva Bharadvaj, seniors Wayne Feng (IEOR and Economics), Dwight Asuncion (IEOR), Winnie Kuo (BioE) and Carol Huang (CEE).

"By donating to the gift campaign, we take part in making sure that Berkeley Engineering remains the number one engineering school," says Kuo. "Senior gifts help develop future generations of engineers, since our contribution goes back to funding Engineers' Joint Council, faculty recruitment and student outreach."

For more information contact tmcculloch@berkeley.edu.



TEAM 2008: L-R: Bharadvaj, Feng, Asuncion, Kuo. Huang not pictured.



www.coe.berkeley.edu/seniorgift

< announcements >



Get the complete College calendar at www.coe.berkeley.edu/events.

Preventing diabetic blindness

CITRIS presents a lecture by Jorge Cuadros, assistant clinical professor of optometry on EyePACS, a web-based communication system that screens for diabetic retinopathy, the leading cause of diabetic blindness among working-age adults. The talk, which begins at noon Wednesday, February 6, in 290 Hearst Memorial Mining Building, is free, open to the public and broadcast live at mms://media.citris.berkeley.edu/webcast.

E-Week getting closer

Many groups have volunteered to host events for Engineers Week, set for February 19 through 22. This year, students can look forward to daily barbecues, tabling, info sessions, and night activities such as receptions. Anyone wanting to help out should contact Q.J. Flores at vp@ejc.berkeley.edu.

CE career fair next Wednesday

Society of Civil Engineers and Chi Epsilon presents a Civil Engineering Career Fair, 4 p.m. to 7 p.m. Wednesday, February 13, at the MLK Student Union, Pauley Ballroom, 3rd floor. Open to all majors. For an optional dinner with employers (cost \$10), advance reservations are required. For more info, contact industry@calasce.org.

Update that resume

Hewlett Packard will hold a recruitment infosession from 6 to 8 p.m. Tuesday, February 12, in Wozniak Lounge, 4th Floor of Soda Hall. Other upcoming sessions include VMWare at 5 p.m. February 13, Amazon.com at 5 p.m. February 20, Lockheed Martin at 6 p.m. February 21, and Pixar at 5 p.m. February 27. All will be held in Wozniak. For a complete schedule go to www.eecs.berkeley.edu/IPRO/infosessions.shtml.

< career corner >

WITH ME/BIOE ALUM JOYCE KEYAK

After graduating from Berkeley, Joyce Keyak (B.S.'89 ME, Ph.D.'96 BioE) joined the faculty at UC Irvine, where she is associate professor in residence in orthopaedic surgery. She specializes in osteoporosis and the biomechanics of bone and has pioneered noninvasive methods for creating subject-specific finite element models to evaluate bone strength. These methods have been used to compute the hip strength of astronauts before and after extended missions on the International Space Station.

What do you like about your job?

I love the intellectual challenge of doing innovative research. I am constantly learning about new and exciting things. I can follow my interests as long as I can get funding to support the research, in contrast with researchers in industry. Unfortunately, securing grant funding can be very stressful, especially at times like this when so few National Institutes of Health grant proposals are getting funded. That is the down side to being in academia.

How did you find your passion?

I listed my interests and skills, both personal and professional. My interest in health care, desire to handle unusual challenges, and background in engineering led me to research in bioengineering.

What do you recommend students do during school to prepare for a career?

Work in your field at least a little before graduating. Even a little experience will help you get a job.

What are some things to think about while considering a potential job?

What career path can you expect from the job? Will you be able to grow professionally? Will you be happy with the demands of the job? What is the reward for success in that job, and does that match your goals and values?

Have additional questions? Contact jhkeyak@uci.edu.



Tell us a little bit about your jobs since graduating from Berkeley.

My career path has been unusual. I took five years off during my senior year because the ME program left me burned out. During those years, I realized that I was interested in medicine. I found a research job in bone mechanics at UCSF and the S.F. Veterans Administration Hospital. I continued with that job as I completed my bachelor's in ME part-time. After earning my Ph.D., I was recruited to UC Irvine.

< of note >



PEG SKORPINSKI PHOTO

BioE Assistant Professor Irina M. Conboy has received a \$2.25 million grant from the California

Institute for Regenerative Medicine for stem cell research. Conboy, who joined the Berkeley faculty in 2004, is researching whether embryonic stem cells can rejuvenate aging muscles. Conboy was one of 22 researchers chosen by the Independent Citizens Oversight Committee, the governing board of the institute, to share \$54 million in funding for stem cell scientists.

Investing in the future

NE hosts international visitors for symposium



PEG SKORPINSKI PHOTO

NEXT GENERATION: Graduate students in nuclear engineering from Berkeley and the University of Tokyo mix it up during a January symposium on campus.

Berkeley has formed an alliance with the University of Tokyo to start a cross-cultural graduate nuclear engineering program to foster collaboration between the two nations.

U.S. nuclear engineers can learn a great deal from Japan's highly developed use of nuclear power, says Eugenio Urquiza, an NE Ph.D. student.

"Nuclear is one of the few energy sources that can replace coal, and Japan is a great example of a country developing technology that uses mostly nuclear energy for electricity."

The cross-continental program was born when Tokyo professor Hiroyuki Takahashi visited UC Berkeley NE professor Joonhong Ahn 18 months ago. They received a grant to develop a program that will address global problems like protecting the environment, supplying safe and stable nuclear energy and applying radiation for healthy lives.

During the semester break, the Tokyo contingent spent three days in January visiting Berkeley, presenting papers and discussing research. At a concluding symposium at Berkeley's Faculty Club, students and professors from both countries said the meetings were a valuable first step in training future engineers and exchanging international expertise.

Max Fratoni, a fourth-year NE Ph.D. student, noted Japan's resourcefulness in investing in education to ensure opportunity for future students to study nuclear energy. "A lot of the workshop is about educating the next generation of engineers," he says. "There is a lack of students in this field."

Ahn, a Tokyo native who joined the Berkeley faculty in 1995, says that, while Japan is more advanced in some areas of nuclear strategy, the U.S. is far ahead in regulations.

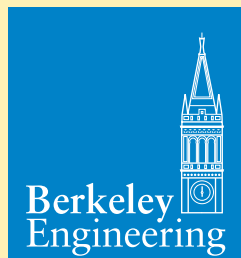
"The rest of the world is carefully watching and following what the United States is doing in this area," he says.

Now under way is a distance learning project, with the broadcasting of Berkeley nuclear engineering colloquia to Tokyo.

Tatsushiko Ogawa, a master's student from Tokyo, says many of the presentations were of interest to him because they were far removed from his specialty.

"Most were for reactors," he says, "and I am going to work for a nuclear fuel company. Before coming here, I didn't know anything about a Pebble Bed advanced high temperature reactor! It's not studied in Japan."

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University of California
Engineering News
312 McLaughlin Hall
Berkeley, California 94720-1704
Phone: 510 642.5857
Fax: 510 643.8882

engnews@coe.berkeley.edu

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Celeste Altus
acting managing editor and writer

Patti Meagher
copy editor

S. Shankar Sastry
dean

Teresa Moore
executive director, office of marketing and communications

www.nuc.berkeley.edu

