

New Doctors of USC Web site adds search features, video tips

By Cheryl Bruyninckx

The Doctors of USC have launched a fresh new online destination for patients seeking a USC medical professional for their health needs.

The site also offers volumes of free health and wellness information for consumers.

The Web site, found at www.DoctorsofUSC.com, is a new portal for the Keck School's medical faculty practice. It features user-friendly search options that make it easy for patients to find the right doctor from a broad range of specialists.

Patients can search from the roster of renowned Keck School physicians by specialty, location or language and also request an appointment online.

"This site is the centerpiece of our current marketing efforts for the Doctors of USC," said Jane Brust, associate senior vice president for USC health sciences public relations and marketing. "One of our goals is to introduce our physicians and our campus to consumers—many of whom have never been here—through the use of documentary-style videos. The site also features health news and information to entice site visitors to return again and again."

The Web site offers a library of articles on healthy lifestyle, disease prevention and other health tips for consumers. The "My Health" portal offers users several tools to personalize their experience with The Doctors of USC, including participation in support group forums. The Doctors of USC site also features photographic images of the Health Sciences Campus and compelling photographs of USC physicians. Several documentary-style videos introduce USC's clinical enterprise and allow users to see The Doctors of USC and their patients in action. Shorter videos called "Medical Minutes" show physicians offering health advice related to their vari-

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USC/Norris celebrates naming of Day Hospital

By Katie Neith

This past spring, Larry Freeman, founder and CEO of Freeman Cosmetics, and his wife Judy pledged \$5 million to name the Judy and Larry Freeman Cancer Day Hospital, an outpatient facility currently located on the first floor of the USC/Norris Cancer Hospital.

On July 12, the Cancer Center formally celebrated the naming of the Day Hospital with an intimate gathering of Freeman family and friends, replete with music, food and ribbon-cutting.

The Freemans have a long history of philanthropic giving to the USC/Norris Comprehensive Cancer Center, influenced by the care their

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Judy and Larry Freeman attend the July 12 celebration of the new Cancer Day Hospital named in their honor.

State-of-the-art radiosurgical tool promises faster, better treatment

By Meghan Lewit

The Keck School of Medicine Department of Neurological Surgery is among the first in the nation to acquire a powerful new tool in the fight against serious brain disorders.

The cutting-edge instrument—which focuses multiple beams of concentrated radiation onto a targeted area—will more rapidly and effectively treat a myriad of serious neurological problems, said Michael Apuzzo, professor of neurological surgery at the Keck School of Medicine and holder of the Todd-Wells Professorship in Neurosurgery.

"It's an enormous breakthrough for

neurological surgery at USC," Apuzzo said. "This instrument represents the epitome of what modern medicine has at its disposal."

The instrument, called the Gamma Knife Perfexion, will usher in the next generation of stereotactic radiosurgery, Apuzzo said. Stereotactic radiosurgery is a highly precise form of radiation therapy that is commonly used to treat tumors and other brain abnormalities. The patient is awake and under only a local anesthetic during the treatment.

The \$6 million instrument is one of the first to begin operating in the U.S. Only two major university medical cen-

ters on the West Coast currently have the technology, Apuzzo said.

The Gamma Knife Perfexion is fully robotic and increases the speed and accuracy of the radiation treatment by eliminating the need to manually adjust settings while patients are undergoing treatment, Apuzzo said.

Previous models required patients to be fitted with a 500-pound helmet that directed radiation beams through tiny tunnels, called collimators, while blocking others. Treatments that had to be done by multiple tedious manual alignments now can be robotically completed

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USC/Norris opens new Patient Education and Outreach Center

By Katie Neith

When Jennifer Diamond was diagnosed with appendiceal carcinoma, a rare form of appendix cancer, she and her family found it extremely hard to access information about her disease. After Jennifer passed away at age 30, her parents—Alice and Harvey Diamond—vowed to help others by providing resources to cancer patients and their families.

On June 5, the Diamonds' promise was realized at the USC/Norris Comprehensive Cancer Center with the formal opening of the Patient Education and Outreach Center and Jennifer Diamond Cancer Resource Library. The library is the sixth of its kind to be funded by the Jennifer Diamond Foundation, a fundraising and outreach organization created by Jennifer during her illness.

"What we have here is a promise to Jennifer from myself," said Harvey Diamond at the opening celebration. "She asked me to do something positive for people who have cancer and their

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From left, Janet Villarmia, Lourdes Baezconde-Garbanati, Harvey and Alice Diamond, Carol Marcusen and Phyllis Rideout unveil the Patient Education and Outreach Center and Jennifer Diamond Cancer Resource Library at a June 5 celebration at the USC/Norris Comprehensive Cancer Center.

US News and World Report ranks USC affiliated hospitals among nation's best

By Meghan Lewit

USC-affiliated hospitals placed among the best in the nation in the *U.S. News & World Report* magazine's 19th annual rankings of "America's Best Hospitals" in the July 21 issue.

USC-affiliated hospitals included in the rankings are: USC/Norris Cancer Hospital, USC University Hospital, Doheny Eye Institute and Rancho Los Amigos National Rehabilitation Center.

The rankings are categorized by medical specialty, with the top 50 medical centers listed for most specialties. Doheny ranked seventh in ophthalmology, climbing one spot from a ranking of eighth in 2007.

Rancho Los Amigos ranked 16th in rehabilitation, USC/Norris ranked 45th in cancer and University Hospital ranked 45th in gynecology and 49th in neurology and neurosurgery. USC/Norris Cancer Hospital appeared on the list for the first time.

"The Keck School of Medicine of

USC salutes our dedicated physicians whose work in these hospitals is recognized by rankings such as these, among many other awards and honors," said Carmen A. Puliafito, dean of the Keck School of Medicine. "Our faculty physicians, who work at hospitals throughout the Los Angeles area, demonstrate every day their commitment to the highest standards of patient care."

The Best Hospitals guide ranks 170 medical centers nationwide in 16 specialties.

To be eligible for 12 of the 16 specialties, a hospital had to meet at least one of three requirements: membership in the Council of Teaching Hospitals, affiliation with a medical school, or availability of at least six of 13 key technologies such as robotic surgery. Eligible hospitals also had to have a specified volume in certain procedures and conditions over three years, or have been nominated in the magazine's yearly specialist survey. The rankings also

took into account hospital reputation, death rate and factors like nurse staffing and technology.

In four other specialties—including ophthalmology and rehabilitation—ranking is based solely on reputation, derived from the three most recent physician surveys.

The information for the rankings

came from various sources, most prominently the American Hospital Association's survey of member and nonmember hospitals.

The full list of hospital rankings is also available online at www.usnews.com/besthospitals. Full data is available online for another 1,500 hospitals that are unranked.

DOCTORS: Revamped Web site highlights quality of USC physicians

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ous specialties.

"Navigating the health care system can be challenging," said Minor Anderson, president and CEO of The Doctors of USC. "Our goal was to make it simple for patients to find a doctor, make an appointment and learn about the quality work done by our USC physicians."

The site launched July 1 and was promoted internally to faculty and staff. The new site will be promoted to external audiences beginning this fall.



The Doctors of USC Web site incorporates new features to make it easier to use.

Biofilms seen as a cause of jaw osteonecrosis

A group of USC School of Dentistry researchers has identified the slimy culprits killing the jawbones of some people taking drugs that treat osteoporosis—microbial biofilms.

A mix of bacteria and sticky extracellular material, biofilms cause jaw tissue infections in patients taking bisphosphonate drugs, said Parish Sedghizadeh, lead researcher and assistant clinical professor at the USC School of Dentistry.

Sold under brand names such as Fosamax, Boniva and Actonel, bisphosphonates are prescribed to millions of patients to combat osteoporosis, a bone-wasting disease that increases the risk of fractures.

Sedghizadeh said there have been increasing reports of osteonecrosis (bone death) of the jaw in patients who have been taking the drugs for osteoporosis or for treatment from the bone-wasting effects of cancer. He said he decided to investigate further after seeing patients in USC dentistry clinics who had the unusual jaw infection.

"This is the first study that identifies microbial biofilms in the bone of bisphosphonate patients who have osteonecrosis of the jaw," Sedghizadeh said.

Jaw osteonecrosis occurs when bacteria-laden biofilms infect the jaw after the bone is exposed, typically because of a tooth extraction or injury.

The research team includes renowned biofilm expert J. William Costerton, director of the Center for Biofilms at the USC School of Dentistry.

Pioneered by Costerton, biofilm theory has moved scientists beyond thinking of bacteria as free-floating organisms. Instead, bacteria build biofilm communities, attaching to surfaces and communicating and defending against antimicrobial invaders.

The team used powerful scanning electron microscopes to study patients' jawbone samples. The images revealed biofilm bacteria sprawling over pitted tissue.

The scientists are now trying to determine why bisphosphonate drugs seem to open the door for biofilm-associated infections of the jaw.

The study was funded by the USC School of Dentistry with the assistance of a USC Zumberge Research and Innovation Award. The results of the study were published in the April issue of the *Journal of Oral and Maxillofacial Surgery*.

LAC+USC officials say its time to take out the trash

In preparation for the move from the LAC+USC Medical Center to the Replacement Facility, hospital officials are urging affected USC staff and faculty to prepare for the move by throwing away unneeded items.

Space is extremely limited in the new facility and everyone should visit their new offices or working areas with a tape measure to ensure they know how much space is available—and plan accordingly.

For specific instructions on disposing of surplus equipment or supplies, visit the hospital Intranet, click on the Technology Resources heading and then on the IS Downloads and Forms link.

To have your items picked up, print and complete the form and fax it to (323) 226-4052, no later than 2 p.m. Tuesday for a Wednesday pick-up. All forms received after 2 p.m. Tuesday will be picked up the following Wednesday.

To receive a form and instructions or for additional information, contact Pat Holley or Linda Guerra at (323) 226-6075 or Stanley Sharp at (323) 226-6182.

Keck School physicians to speak at 2008 Oncology Conference

Two Keck School professors will be presenting at the 2008 Oncology Congress, which will be held September 25-28 at the Hilton San Francisco. Oncology Congress is an interactive CME conference designed to provide attendees with the latest clinical data, best practices and new technologies.

Dan Douer, director of the Bone Marrow Transplantation Program and Bone Marrow Laboratory at USC/Norris Comprehensive Cancer Center, will present strategies to improve the outcome of adults with acute lymphoblastic leukemia on Friday, Sept. 26. David I. Quinn, medical director of Norris Cancer Hospital and co-leader of the Genitourinary Cancer Program at USC/Norris Comprehensive Cancer Center, will provide an update on long-term survivorship in testis cancer on Saturday, Sept. 27.

Attendees from USC are eligible to attend at a reduced rate. Physicians can attend for only \$395, nurses \$195, and attendance for fellows is complimentary. For more information or to register, visit www.oncologyconference.com.

School of Pharmacy research fellow wins pair of prestigious fellowships

By Kukla Vera

USC School of Pharmacy research fellow Heather Owens recently won two prestigious fellowships—one from the American College of Clinical Pharmacy (ACCP) Research Institute and another from the American Foundation for Pharmaceutical Education (AFPE).

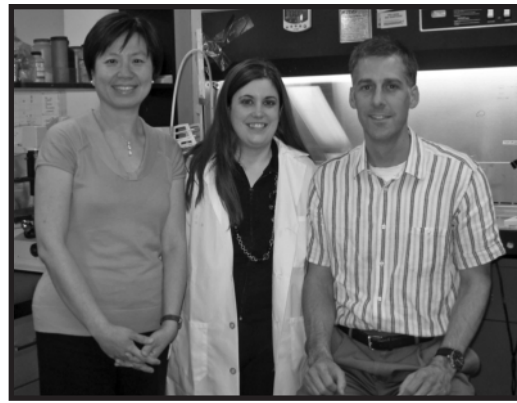
She received the ACCP Research Institute's 2008 Ortho-McNeil Infectious Disease Research Fellowship. The fellowship, recognized as among the most prestigious in infectious disease pharmacy, is the only such award given nationwide by the organization, which sets the standards for all fellowship training in pharmacy.

She also received the AFPE Clinical Pharmacy Post-Pharm.D. Fellowship in the Biomedical Sciences for 2009, which is one of only two that the foundation grants each year.

Owens will bridge two translational research programs at the School—the infectious disease research of Annie Wong-Beringer, vice chair of the Titus Family Department of Clinical Pharmacy and Pharmaceutical Economics and Policy, and the cystic fibrosis research of Paul Beringer, associate professor.

In the laboratory, Owens will investigate the interaction between microbes and human cell lines in an effort to identify better drug targets to treat infections caused by antibiotic-resistant bacteria.

Wong-Beringer focuses on the “bugs,” bacteria such as methicillin-resistant *Staphylococcus aureus* and *Pseudomonas*, and explores the resistance and virulence of these bugs against drug therapies and how they affect patient outcomes. Paul Beringer's work is “host”



Professors Annie Wong-Beringer and Paul Beringer with fellow Heather Owens (center).

centered, looking at how the host cells respond to the invading bugs by monitoring which genes turn on or off in response to the bugs' presence. The two research programs provide Owens with the unique set up necessary to complete her work.

In the laboratory, Owens will infect human lung cells with the bacterium *Pseudomonas* and study how the host cells react.

“As a first step, I'll be looking at which genes turn on to fight these bacteria and also look at which genes in the bacterium turn on to allow them to invade the hosts,” said Owens who has both Pharm.D. and M.S. degrees. “Then I'll inject the cultures with various drugs, evaluating the impact on both the bugs and the host.”

The in vitro model allows Owens to screen compounds that may have a positive effect on fighting these invaders. Further, the laboratory tests provide information on drug toxicity and dosing.

The name Beringer is not a coincidence; in fact the two professors are married. Owens's work promises to bring their labs a little closer together.

“This is a very unique fellowship because of the translational aspect—Heather is doing work in the laboratory and then moving on to clinical trials, testing the compounds on patients,” said Wong-Beringer, who is an associate professor at the School.

The goal of their integrated research programs is to discover new ways of using existing compounds, as well new chemical entities, in clinical drug development. “Heather's work will achieve a better understanding of the host and bacterial interaction and then take advantage of existing drugs with known safety profiles,” said Paul Beringer.

Owens will be looking at pioglitazone, commonly known by the trade name Actos, which is a medication used for Type 2 diabetes and the antibiotic doxycycline. While both of these drugs are commonly used, neither has on-label use for MRSA and *Pseudomonas* infections.

“Right now, we are at a critical juncture where the pharmaceutical industry has severely cut back antibiotic drug development, while bacteria that commonly cause infections are becoming increasingly resistant to available agents,” said Wong-Beringer. “Heather will be looking to identify ways to turn off or block genes that cause cell damage in the host when these infections invade.”

Owens said she hopes to ultimately pursue an academic career that will allow her to teach while pursuing research.

“It's very rewarding to have the experience of working across two labs,” said Owens. “I'm getting the best of both worlds—the laboratory and the clinical setting. And it's fun that my preceptors are married.”

NIH FUNDING UPDATE

Keck School departments among top 20 funded by NIH

Department	FY 2007 NIH Funding*	Rank
Preventive Medicine	\$35,100,000	1
Pediatrics	\$23,400,000	4
Ophthalmology	\$6,800,000	6
Otolaryngology	\$5,900,000	7
Urology	\$1,600,000	13
Dermatology	\$1,600,000	15
Neurology	\$4,700,000	19
Orthopaedics	\$900,000	20

Although funding from the National Institutes of Health has slowed nationally in recent years, departments of the Keck School of Medicine continue to attract significant investment from the NIH. In fact, the eight departments listed above each ranked in the top 20 NIH recipients among their peer departments nationwide.

* Federal fiscal year (Oct. 1, 2006 – Sept. 30, 2007)

OUTREACH: Specialists, volunteers focus on patient education

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family members and the community. This library is a gift from us, from our foundation; and we hope that everybody enjoys these peaceful surroundings.”

The library is housed at the Patient Education and Outreach Center, a state-of-the-art cancer resource facility of the Cancer Center devoted to patients, their families and community members seeking information about cancer. With support from the National Cancer Institute's (NCI) Cancer Information Services, the center also performs outreach activities and conducts informational programs relevant to the communities it serves.

The Diamond family was involved in the planning of the library every step of the way. They helped choose the calming décor and commissioned a relaxing water fountain created by sculptor John Sorojev. The serene music that plays in the center was recorded by Harvey Diamond.

The center also features computers, reference books, printers, DVDs and Internet access. In addition to manual and computerized information, the center has live phone help with specialized counselors with training from the NCI, a patient navigation information system and trained

volunteers to assist with access to cancer-related resources.

“We not only have scientific and medical experts here; we also have dedicated volunteers; we have very experienced health educators and health promotion specialists, and we have very experienced cancer patients who want to give back,” said Diana Chingos, chair of the Cancer Survivorship Advisory Council. “We'd like to thank the Diamonds and the Jennifer Diamond Foundation for sharing our values that patient education matters, that health literacy matters that during this information explosion no one should be left out, and that access to health information should be as easy and as important as access to care itself.”

Oversight of the center is provided by Janet Villarmia, associate director for administration at the USC/Norris Comprehensive Cancer Center, Lourdes Baezconde-Garbanati, associate professor of preventive medicine, and Carol Marcusen, director of Social Services, Case Management and Patient Education of the USC/Norris Cancer Hospital. The center is located on the ground level of the Harlyne J. Norris Cancer Research Tower. It is open daily from 10 a.m. to 3 p.m. and is staffed by volunteers and USC/Norris staff.

Calendar of Events

Friday, July 25

8:30 A.M. "Cystic Fibrosis," Adupa Rao, USC. GNH 11-321. Info: (323) 226-7923

Saturday, July 26

8 A.M. 4th Annual International Head & Neck Symposium. "Organ Preservation: Balancing Cure and Quality of Life," Various speakers. KAM Mayer Aud. Info: (323) 442-2350

Monday, July 28

4 P.M. "Transplant Conference," Various transplant faculty. UNH Salerni Rm. Info: (323) 442-9093

Tuesday, July 29

9 A.M. Neurology Grand Rounds. "Stem Cells in Glioma Genesis and Therapy," John S. Yu, Cedars-Sinai Medical Ctr. ZNI 112. Info: (323) 442-7686

NOON. Cancer Ctr. Grand Rounds. "DNA Methylation in Lung Cancer," Ite A. Laird-Offringa, USC. NOR 7409. Info: (323) 865-0801

Wednesday, July 30

7 A.M. Medicine Grand Rounds. "Anal Squamous Cell CA," Jijun Liu, USC. GNH 1645. Info: (323) 226-7556

8:30 A.M. "PFT I," Ahmet Baydur, USC. GNH 11-321. Info: (323) 226-7923

Monday, Aug. 11

4 P.M. "Transplant Conference," Various faculty. UNH Salerni Rm. Info: (323) 442-9093

Notice: Deadline for calendar submission is 4 p.m. Monday to be considered for that week's issue—although three weeks advance notice of events is recommended. Please note that timely submission does not guarantee an item will be printed. Send calendar items to HSC Weekly, KAM 400 or fax to (323) 442-2832, or e-mail to eblauw@usc.edu. Entries must include day, date, time, title of talk, first and last name of speaker, affiliation of speaker, location, and a phone number for information.

GAMMA KNIFE: New tool 'a significant step forward' in treatment

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in a fraction of the time, he said.

Using automated, pinpoint accuracy, the new Gamma Knife model reduces treatment time by more than 30 percent and can completely eradicate tumors non-surgically, Apuzzo said. He anticipates that 400 patients a year will be treated with Perfexion Gamma Knife for a number of neurological disorders, including tumors, arteriovenous malformations and facial pain.

"From a patient's standpoint, it's a significant leap forward," Apuzzo said, adding that USC University Hospital is the first in Los Angeles to give patients access to this technology.

The Department of Neurological Surgery was one of the earliest pioneers of stereotactic radiosurgery and the employment of imaging as a navigational basis for brain surgery. In 1975, the first hospital-based computed tomographic (CT) scanner in Los Angeles was installed at USC. The current practice of stereotactic radiosurgery began to take shape globally over the next two decades, led by the team at the

Keck School of Medicine. The first Gamma Knife unit was installed at University Hospital in 1994. Over a 25-year period, approximately 7,000 patients at USC have been treated with stereotactic radiosurgery.

"Stereotactic radiosurgery has changed the face of neurosurgery, and for 25 years the Department of Neurological Surgery at the Keck

School has been a pace-setter in the field," Apuzzo said. "We are continuing that trend with the acquisition of this new instrument. However, previous experience and operating personnel are key factors in its use."

"Looking at how far we've come since 1984 to now treating patients with this unit, my principle thought is, 'Where can we go next?'"



Jon Nalick

The \$6 million Gamma Knife Perfexion dramatically reduces treatment time and can completely eradicate tumors non-surgically

FREEMAN: Family seeks to bolster cancer research, treatment

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son, Mark, received there as a young man.

At the age of 22, a complaint of shoulder pain led to a diagnosis of t-cell lymphoma. He was successfully treated with nine months of chemotherapy.

Larry Freeman joined the Advisory Board of the Cancer Center a few years later. In 1988, he and his family—Judy, Mark, and daughter, Jill, a graduate of

the USC College of Letters, Arts & Sciences—launched the Freeman Aces Cancer Tennis Tournament (FACTT). Since its inception, the event has raised \$3 million for the USC/Norris.

They have also endowed a chair in basic science with a \$1.5 million gift from Freeman Cosmetics. Amy Lee, professor of biochemistry and molecular biology and associate director of basic science at the USC/Norris

Comprehensive Cancer Center, currently holds the Judy and Larry Freeman Chair in Basic Science.

"I have a debt I can never repay," said Larry Freeman. "Before Mark got sick, someone gave money that helped develop the chemotherapy that saved his life. It is my hope that our donations can have a similar impact on other families dealing with a cancer diagnosis."

HSC NEWSMAKERS

Complete listing at: www.usc.edu/uscnews/usc_in_the_news/

A July 17 *Orange County Register* story noted that orthopedic surgeon **David Thordarson** will perform surgery on Los Angeles Lakers forward Luke Walton to remove bone spurs from Walton's right ankle.

A July 14 *Los Angeles Times* article quoted CHLA's **Alan Lewis** about statins as a remedy for youth at risk for high cholesterol.

On July 11, KCBS-TV reported that USC-affiliated hospitals placed among the best in the nation in the *U.S. News & World Report* magazine's annual rankings of "America's Best Hospitals." The story also ran in the *Daily Breeze*.

A July 11 Op-Ed in the *Pasadena Star-News* cited a USC study on air pollution and lung development which found that 10 percent of the

children monitored in Upland, Calif., had reduced lung capacity.

A July 11 *Telegraph* (U.K.) story featured a USC School of Dentistry study led by craniofacial expert **Songtao Shi** which found that aspirin may help prevent osteoporosis. *The Sun* (U.K.) and CBC News (Canada) also featured the study.

A July 9 *Los Angeles Times* story quoted urologist **David Penson** about prostate cancer treatments.

A July 9 Reuters article featured research led by cardiologist **Uri Elkayam** and colleagues which found that heart attack risk is greater for pregnant women. The research was also covered by *The Western Mail* (U.K.); the *Yorkshire Post* (U.K.); and The Press Association (U.K.).

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