

USC researchers find dental disease rampant in children

‘Caries is the most common chronic disease in children and can result in serious pain and illnesses affecting parts of the body beyond the mouth.’

—Roseann Mulligan, chair of the division of dental public health and pediatric dentistry at the Herman Ostrow School of Dentistry

By Beth Dunham

Nearly three-quarters of underprivileged children in Los Angeles County have infectious dental disease that has gone unchecked, according to a study led by the Herman Ostrow School of Dentistry of USC.

In the report released during February’s National Children’s Dental Health Month, researchers Roseann Mulligan and Hazem Seirawan reveal that 73 percent of disadvantaged youngsters have untreated caries, the bacterial disease responsible for tooth decay.

Dentists screened more than 2,300 children at 59 local Head Start centers, Women, Infants and Children centers, elementary and high schools throughout the county in the most comprehensive study on oral health in underprivileged children ever conducted in Los Angeles County. The survey examined youngsters who represent a wide range of ages, races and degrees of caries infection.

A “silent epidemic” with five times the prevalence of asthma, “caries is the most common chronic disease in children and can result in serious pain and illnesses affecting parts of the body beyond the mouth,” said Mulligan, chair of the division of dental public health and pediatric dentistry at the Ostrow School of Dentistry.

The disease is infectious, with bacteria being able to pass between individuals via

shared eating utensils, kissing and other forms of contact. The pain caused by the disease is a huge contributor to school absences throughout the county.

The study also explains many of the complex social, logistical and economic factors that make disadvantaged children more likely to suffer from untreated dental caries. One significant barrier is dental insurance; many children are not covered by Denti-Cal, California’s public dental insurance program, and the parents of those children that are covered may still have trouble regularly seeing a dentist since only about half of the dentists in Los Angeles County accept Denti-Cal, according to Seirawan, research assistant professor at the Ostrow School of Dentistry.

Other factors include poor oral hygiene habits, inadequate nutrition and the consumption of bottled versus fluoridated tap water.

The study offers several suggestions for lessening the impact of dental disease among the county’s underprivileged children.

For example, Mulligan said members of the Los Angeles community can encourage better oral health education at schools, support the organizations providing care to



Beth Dunham

A child receives toothbrushing advice during one of the screening events for the Children’s Dental Health project of Los Angeles County.

disadvantaged children, help more dentists serve lower-income communities after they graduate and campaign for policy changes within local and state government.

New USC study links air pollution to progression of atherosclerosis

By Meghan Lewit

Researchers at the Keck School of Medicine, in collaboration with international partners in Spain and Switzerland and colleagues in California, have found that exposure to air pollution accelerates the thickening of artery walls that leads to cardiovascular disease.

The study, published Feb. 8 in the journal *PLoS ONE*, is the first to link outdoor air quality and progression of atherosclerosis in humans. Researchers found that artery wall thickening among people living within 100 meters (328 feet) of a Los Angeles highway progressed twice as quickly as those who lived farther away.

Study co-author Howard N. Hodis, director of the Atherosclerosis Research Unit

and professor of medicine and preventive medicine at the Keck School of Medicine, said “the fact that we can detect progression of atherosclerosis in relation to ambient air pollution above and beyond other well-established

risk factors indicates that environmental factors may play a larger role in the risk for cardiovascular disease than previously suspected.”

Atherosclerosis—or stiffening and calcification of arteries—is a condition that leads to heart attacks, stroke and related deaths. Animal studies

conducted in recent years have shown that inhalation of particulate matter from traffic and other sources accelerates atherosclerosis, but there has previously been very little study of these effects on humans.

Study principal investigator Nino Kuenzli, vice-director of the Swiss Tropical and Public Health Institute said, “until now, no study has ever investigated whether the slow but chronic process of the development of atherosclerosis

would be affected by ambient air pollution.” Kuenzli began work on the study while a faculty member at the Keck School of Medicine.

The findings were based on five randomized controlled trials conducted by investigators

at the USC Atherosclerosis Research Unit during the past decade, which involved linking the measured effects of outside air pollution to the progression of atherosclerosis in 1,483 participants in the

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Howard N. Hodis, director of the Atherosclerosis Research Unit at the Keck School of Medicine



Tania Chatila

SWEETS FOR THE SWEET—Hospital employees celebrated Valentine’s Day on Feb. 12 with red velvet “cupcakes for caring.” The cupcakes were distributed by members of the administrative team to USC Norris Cancer Hospital and USC University Hospital day-, evening- and night-shift employees. The giveaway not only honored the holiday, but also recognized staff members for all their hard work. Above, Executive Director of Transition and Planning Karen Ribback, right, hands out cupcakes to employees at the USC University Hospital cafeteria.

USC Norris helps patients overcome insurance hurdles for chemotherapy drugs

‘Enrollment in drug replacement programs has greatly improved overall satisfaction among patients and medical oncology staff.’

—Shetal Desai, director of the Clinical Authorization Center at USC Norris Cancer Hospital

By Katie Neith

When Medicare reimbursement guidelines changed in 2003, the USC Norris Cancer Hospital began to experience increases in the number of disputed chemotherapy claims and a significant amount of unpaid chemotherapy drug charges due to third party payer denials.

By 2007, Scott Evans, chief operating officer of the hospital, realized that reimbursement issues needed to be investigated in order to maintain the financial viability of USC Norris and provide consistent quality care. That’s when Shetal Desai, a pharmacist with more than 10 years of managed care experience, was hired jointly through USC School of Pharmacy as faculty and USC Norris Cancer Hospital.

Desai was given the responsibility of determining the root cause of payer disputes and implementing changes in the hospital workflow to improve overall payer reimbursement for chemotherapy drug charges.

“I found that the root cause for many of the chemotherapy disputes revolved

around the issue of obtaining a prior authorization for chemotherapy treatments, especially those that were defined by the payer as ‘experimental or off-label,’” she said.

In March 2008, Desai launched the Clinical Authorization Center (CAC), a clinically staffed center that employs five nurses to specifically focus on obtaining authorizations from commercial payers for chemotherapy. She serves as the director, overseeing the CAC department and continues to make improvements to the process. The CAC now obtains authorization for all payer types and serves as the single point of contact for all chemotherapy drug authorizations.

To her knowledge, USC Norris is the only cancer center that utilizes the expertise of a pharmacist overseeing this type of center.

This unique and cutting-edge management structure has apparently paid off. In addition to resolving reimbursement claims, the CAC also helps enroll patients in manufacturer-sponsored drug replace-

ment programs. Since the inception of the CAC, \$1.2 million dollars of chemotherapy drug replacements have been recovered by the USC Norris Cancer Hospital for patient use.

“Enrollment in drug replacement programs has greatly improved overall satisfaction among patients and medical oncology staff,” said Desai. “These manufacturer-sponsored programs provide select chemotherapy drugs at no charge to qualified patients whose health insurance has denied use of a particular drug based on indication for use or if patients have reached their maximum dollar threshold for chemotherapy.”

In addition, improvements have been noted by hospital finance officials in the reduction of the number of disputed claims citing “medically not necessary,” however, additional information needs to be collected in order to quantify the savings associated with these changes.

Second annual USC Women’s Conference to be held March 12

The USC Alumni Association will hold its second annual USC Women’s Conference, “Women Empowering Women,” on March 12 at University Park Campus’ Bovard Auditorium.

The event, which runs from 7:30 a.m. to 4:30 p.m. will feature sessions on health, career development, financial strategies, and other topics. The Doctors of USC is a gold sponsor of the conference.

Women’s health will be a key feature of the event, with several topics to be covered.

Christy Russell, co-director of the

Lee Breast Center at USC Norris Cancer Hospital, and Stephen Sener, chief of the division of surgical oncology, will discuss advancements in the prevention, screening and treatment of breast cancer, as well as insights into personalized medicine for breast cancer patients.

Leslie Saxon, chief of the division of cardiovascular medicine at the Keck School of Medicine, and Vivian Mo, assistant professor of clinical medicine, will discuss issues related to heart disease in women.

Roberta Brinton, professor of phar-

macology and pharmaceutical sciences at the USC School of Pharmacy, will speak during the personal wellness panel discussion on reducing the risk of developing Alzheimer’s disease.

Additional panels to be presented include building entrepreneurial skills, personal branding, avoiding financial mistakes, wealth management and philanthropy, and stress reduction.

Tickets are

\$65, with discounted tickets offered for \$45 for students and young alumni.

To register and view a list of presentations, visit <http://alumni.usc.edu/womensconference>. For more information, call Danielle Harvey at (213) 740-6273.

Jae Jung elected to American Academy of Microbiology

Jae Jung, professor and chair of the Department of Molecular Microbiology and Immunology, has been elected to Fellowship in the American Academy of Microbiology.

The academy, an honorific leadership group within the American Society for Microbiology (ASM), recognizes excellence, originality and creativity in the microbiological sciences, and election to this group is a mark of distinction.

Jung will be honored at the Academy Fellows Luncheon and Meeting at the upcoming ASM General Meeting in San Diego on May 26.

Jung is regarded as a leading expert in the molecular biology of y-herpesviruses and their gene products as they relate to cell biology, biochemistry and immunology. He has made a number of seminal observations, most notably regarding the biochemistry and cell biol-



Jae Jung, professor and chair of the Department of Molecular Microbiology and Immunology

ogy of oncoproteins encoded by y-herpesviruses.

The Weekly

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New partnership enhances undergraduate pre-health options

By Susan Andrews

More than 30 percent of first-year undergraduate students at USC College of Letters, Arts and Sciences enroll as pre-health majors. This large cohort, along with future pre-health students, soon will benefit from enhanced pre-health undergraduate programming and advising as a result of a special partnership between the Keck School of Medicine and USC College.

Faculty from both schools worked closely to determine how best to maximize their partnership and create a unique program of national renown. The plans include the creation of an advising office specific to pre-health students together with the integration of new and existing pre-health academic programs.

“This significant new collaboration between the Keck School of Medicine and USC College is an important undertaking to ensure the supply of outstanding health care professionals for California,” said Keck School Dean Carmen A. Puliafito. “For our medical school, the program will provide a terrific pipeline for students who already

are members of the Trojan Family. The program will help them get a taste of what may lie ahead in a rewarding career in medicine.”

The expansion of undergraduate academic programming and advising also will serve as a key tool in the recruitment and retention of pre-health majors. Such efforts will encourage top-performing students to maximize their potential and will provide assistance to others desiring additional counsel.

“This exciting and innovative partnership between USC College and the Keck School of Medicine will ensure a truly outstanding academic and advisement experience for USC undergraduates interested in pre-health professions,” said Howard Gillman, dean of the College. “We expect that the academic programs and student experiences arising from this partnership will be a national model for how to educate and prepare the next generation of health professionals.”

Pre-health has long been a popular area of study in the College, where its students prepare for careers in health and allied health careers. In the fall,

850 of the 2,700 first-year students in the College registered as pre-health majors.

New courses that would be highly attractive to pre-health students might include introduction to pre-health careers, ethics in medicine, research methods, scientific writing, Third World medicine, medical Spanish and peer mentoring, to name a few. In addition, small group sessions for first-year students that build community and introduce them to pre-health opportunities will be offered.

Other value-added experiences include courses in which students participate in community service, gain firsthand experience in basic science research and shadow a clinical physician of their choice or assignment. These and other innovative ideas are being worked on by faculty from both schools.

The national search for the director of the USC College-Keck School of Medicine Academic and Advising Program, who will help plan and implement this signature experience for pre-health undergraduates, is under way.

‘The program will help [undergraduate students] get a taste of what may lie ahead in a rewarding career in medicine.’

—Carmen A. Puliafito, dean of the Keck School of Medicine

POLLUTION: Research could have global implications for public health

Continued from page 1

Los Angeles area. Colleagues at the University of California, Berkeley, developed novel spatial models and air pollution measurements to estimate particulate matter all across Southern California, and to estimate proximity from participants’ homes to high exposure zones near highways and traffic corridors.

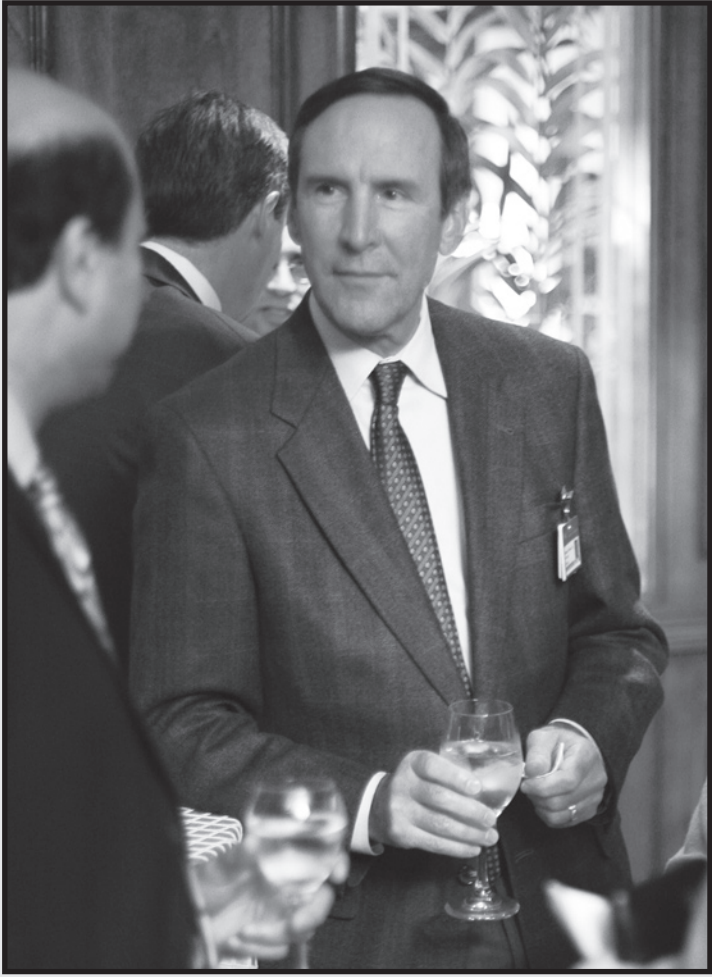
The investigators found that annual progression of artery wall thickness among those living within 100 meters of a highway was accelerated by 5.5 micrometers a year, more than twice the average progression of people who lived farther away.

The findings support emerging evidence that high-traffic corridors are unhealthy residential locations, researchers said.

With funding from the

National Institutes of Health and the Obama Administration, through the American Recovery and Reinvestment Act of 2009, the investigators have launched two large studies examining the risk of ambient air pollution in the early development of atherosclerosis in children and young adults where cardiovascular risk factor is low, Hodis said.

“Should studies in children and young adults support our current findings in adult populations concerning ambient air pollution and atherosclerosis risk, the public health implications and preventive strategies for further reducing cardiovascular disease will have global implications for both developed as well as developing industrial nations,” he said.



Jon Nalick

WELCOME TO USC—Renowned breast surgeon Stephen Sener, professor of clinical surgery at the Keck School of Medicine, enjoys a Feb. 4 welcome reception in his honor. Sener joined the Trojan Family as chief of the division of surgical oncology and as a part of the USC Norris Comprehensive Cancer Center and Hospital in September of last year. He previously served as national president of the American Cancer Society, and his service as volunteer chair of the organization’s Cancer Incidence and End Results Committee facilitated evolution of the concepts of quality care and health care access. The work also led to the development of the National Cancer Database.

The Weekly NEWSMAKERS

A Feb. 19 *Washington Post* article highlighted USC’s transfusion-free surgery program, which specializes in “bloodless” procedures.

A Feb. 18 Yahoo! News article featured chief of cardiovascular medicine **Leslie Saxon** and the new Women’s Heart Center at USC.

A Feb. 15 widely carried HealthDay News article quoted clinical assistant professor of pediatrics **Clara Lajonchere** about a study showing that people with high-functioning autism were better able to “catch” social cues after inhaling the hormone oxytocin.

A Feb. 14 *Los Angeles Times* article featured a study led by director of the Atherosclerosis Research Unit **Howard Hodis**, which found that air pollution can speed the hardening of arteries that leads to cardiovascular disease. KABC-TV, KTLA-TV, FOX-11, KCBS/KCAL-TV, KPCC-FM, KNX-FM, Telemundo, LA Observed, the *Orange County Register*, LAist, the *Times of India*, HealthyCal.org and Futurity.org also featured the research.

A Feb. 14 *Los Angeles Times* article featured chief of the division of emergency non-trauma surgery and director of the USC Minimally Invasive Surgery Program and Center

Namir Katkhouda in a column on lap-band surgery.

On Feb. 12, KCBS/KCAL-TV featured chair of the department of urology and associate dean for clinical innovation **Inderbir Gill** and a pioneering surgery he performed in which a boy received a kidney transplant from his father.

A Feb. 10 *Los Angeles Times* article quoted professor of preventive medicine and director of the USC Childhood Obesity Research Center **Michael Goran** about the benefits of gastric bypass surgery for teens versus lifestyle changes.

A Feb. 2 *La Opinion* article quoted associate professor of medicine and orthopaedics **Paul Holtom** about the H1N1 flu virus.

A Feb. 7 *New York Times* article highlighted USC as one of the institutions that has benefited from the Eli and Edythe Broad Foundation. An interactive map included information and photos of the Eli and Edythe Broad CIRM Center for Regenerative Medicine and Stem Cell Research at USC. It also noted that Broad is a member of the board of overseers of the Keck School of Medicine.

Calendar of Events

This Calendar of events is also online at www.usc.edu/hscalendar for the Health Sciences Campus community

Monday, Mar. 1

Noon. KSOM Research Seminar. “Functional Genetic Variants that Contribute to Autism Risk,” Dan Campbell, USC. NRT Aresty Aud. Info: (323) 442-1144

Noon. “Case Presentations,” Gebran Abboud, USC. IPT C2J101. Info: (323) 409-7995

3 p.m. – 5 p.m. Hoyt Gallery Art Exhibit Opening. KAM Base-ment Lobby. Info: (323) 442-2553

Tuesday, Mar. 2

9 a.m. Neurology Grand Rounds. “When the Sweet Chariot Swings Low: Tracking Neuroendocrine Responses to Hypogly-cemia,” Arshad Khan, USC. ZNI 112. Info: (323) 442-7686

Noon. Psychiatry Grand Rounds. “Neuropsychiatric Phenom-ics: Modeling Multi-scale Hypotheses from Genome to Syn-drome,” Robert Bilder, UCLA. ZNI 112. Info: (323) 442-4065

Noon. Cancer Center Grand Rounds. “HPV Immune Escape and its Reversal: New Options for Treatments of HPV Infec-tions and Induced Lesions,” Martin Kast, USC. NRT Aresty Aud. Info: (323) 865-0801

Wednesday, Mar. 3

8:30 a.m. “The Future: Light and Intermittent Smoking,” Rebecca Schane, UC San Francisco. IRD 732. Info: (323) 226-7923.

5 p.m. USC Global Health Lecture Series. “Global Advocacy Policy and Change,” Joe Cerrell, Bill and Melinda Gates Founda-tion. NRT Aresty Aud. Info: (323) 865-0419

Friday, Mar. 5

8:30 a.m. Surgical Grand Rounds. “The Evolution of Minimally Invasive Valve Surgery,” Aubrey Galloway, New York Univ. DOH 100. Info: (323) 442-2506

8:30 a.m. USC Research Center For Liver Diseases 15th An-nual Research Symposium. Various speakers. HMR 100. Info: (323) 442-5576

8:30 a.m. “Between Alveolar Cell Apoptosis, Oxidative Stress, and Senescence in Cigarette Smoke-induced Pulmonary Dis-eases,” Rubin Tudor, Univ. of Colorado. IRD 732. Info: (323) 226-7923

Monday, Mar. 8

Noon. KSOM Research Seminar. “Implantable Drug Delivery Pumps Enabled by Polymer BioMEMS,” Ellis Meng, USC. NRT Aresty Aud. Info: (323) 442-1144

Noon. ZNI Seminar. “The HapMap Resource is Providing New Insights into Ourselves and its Application to Pharmacog-enomics,” Wei Zhang, Univ. of Chicago. ZNI 112. Info: (323) 442-2144

Wednesday, Mar. 10

8:30 a.m. “Management of Vasospasm,” Arun Amar, USC. IRD 732. Info: (323) 226-7923

Noon. ZNI Seminar Series. “Secreted Semaphorins Control Spine Distribution and Morphogenesis in the Postnatal CNS,” Tracy Tran, Johns Hopkins. ZNI 112. Info: (323) 442-2144

Friday, Mar. 12

Noon. “Case Presentations,” Angie Sadeghi, USC. OPT A5C129. Info: (323) 409-7995

Tuesday, Mar. 16

Noon. KSOM Research Seminar. “Mechanism and Targeting of DNA Binding by the RAG Proteins During V(D)J Recombination,” David Schatz, Yale. NRT Aresty Aud. Info: (323) 442-1144

Notice: Deadline for calendar submission is 4 p.m. Mon-day 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 *The Weekly*, KAM 400 or fax to (323) 442-2832, or e-mail to eblaauw@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.



Alex J. Berliner

A NIGHT TO REMEMBER—Keck School of Medicine Dean Carmen A. Puliafito, right, poses with singers Tim McGraw and Faith Hill at the 13th Annual Unforgettable Evening, which benefited Entertainment Industry Foundation’s Women’s Cancer Research Fund. The star-studded event was held on Jan. 27 at the Beverly Wilshire Hotel in Beverly Hills. The USC Norris Comprehensive Cancer Center, led by Peter Jones, is one of the primary beneficiaries of funds raised for innovative cancer research. Norris Cancer Center Advisory Board members Marion Laurie and Quinn Ezralow are among the founders of the EIF’s Women’s Cancer Research Fund.

Hospitality specialist Wendy Quinn remembered

Wendy Quinn, 66, program specialist of USC Hospitality, was remembered at a standing-room-only memorial service Feb. 20 in the Aresty Auditorium of the USC Norris Comprehensive Cancer Center. She died of cancer Feb. 14.

For the past 25 years, Quinn served as catering sales manager of Trojan Hospitality at the Edmondson Faculty Center on the Health Sciences Campus, developing strong working and personal relationships with administration, staff and her co-workers.

She was eulogized by several prominent figures from the Keck School of Medicine, including former Dean Stephen Ryan, Distinguished Professor of Medicine Emeritus Alexandra Levine, and Chair of the Department of Anesthesiology Philip Lumb. All of them used the word “gracious” when describing Quinn.

Last fall, friends and family raised nearly \$2,000 for research on Quinn’s behalf to honor her and the doctors and nurses of the Norris Day Hospital. Bricks commemorating the gift line the perimeter of the Harlyne J. Norris Cancer Research Tower’s Hinderstein Family Meditation Garden.

A native of Glasgow, Scotland, Quinn immigrated to the United States in 1968. In Los Angeles, she was a part of the catering business at Rococco’s and The Moveable Feast before joining USC.

She is survived by a daughter, Meg Quinn, and loving caretaker, Patrick Quinn.

As expressions of sympathy, the family suggests donations to support cancer research at the USC Norris Comprehensive Cancer Center in her honor by visiting <http://uscsom.convio.net/goto/WendyQuinn>.



Wendy Quinn

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