

USC luminaries named to AAAS

By Kukla Vera

School of Pharmacy Professor Jean C. Shih and Provost C. L. Max Nikias are among five leading scientists at USC named Fellows of the American Association for the Advancement of Science in recognition of outstanding contributions in science and engineering.

Shih, the sole Health Sciences Campus faculty member named, was recognized in the neuroscience category “for distinguished contributions to the field of molecular neuropharmacology, particularly for contributing to the present knowledge on monoamine oxidases and their roles in behavior.” Her findings have therapeutic applications for depression, anxiety and aggression, as well as Parkinson’s and Alzheimer’s disease.

Shih, a University Professor and the Boyd P. and Elsie D. Welin Professor in Pharmacology and Pharmaceutical Sciences, has won international acclaim for her study of how the brain enzyme monoamine oxidase (MAO) affects behavior. Her laboratory was the first to clone the human MAO A and B genes and to unravel the structure, functions and regulation of these genes.

MAO has profound effects on behav-

ior and influences neurotransmitters crucial to emotion, such as serotonin, dopamine and norepinephrine. For example, Shih’s work has shown that mice lacking both MAO genes display relentless aggression.



Jean Shih

Shih, who has previously won two MERIT Awards from the National Institutes of Health (NIH), has had more than 30 consecutive years of NIH funding for her work.

The American Association for the Advancement of Science (AAAS) is the world’s largest general scientific society and publisher of the prestigious journal *Science*.

Joining Shih and Provost Nikias as new AAAS fellows are Maja Mataric, from the Viterbi School of Engineering, and Douglas Capone and Howard Taylor, both from the College. The USC awardees will be among 471 scientists honored in February 2008 at the Fellows Forum of the 2008 AAAS Annual Meeting in Boston, Mass.

The tradition of AAAS fellows began in 1874. Members are considered for the rank of fellow if nominated by the steering group of their respective sections, by three fellows or by the association’s chief executive officer. The AAAS Council votes on the final list.

USC School of Dentistry cheers decision to fluoridate region’s water

By Veronica Jauriqui

When the Metropolitan Water District (MWD) announced it would increase fluoridation levels to be on par with the majority of the country’s water supplies, it was a victory for oral health advocates who understand fluoride’s important role in maintaining good dental health.

For Eugene Sekiguchi, USC School of Dentistry associate dean for International, Professional and Legislative Affairs, it was an accomplishment representing more than a decade’s lobbying in support of the issue.

“This is a tremendous achievement and one that will significantly impact many regional municipalities,” Sekiguchi said. “It was a long time coming.”

The MWD, a cooperative of 26 cities and water agencies in Southern California, supplies water to 18 million people in six counties from Santa Barbara to San Diego.

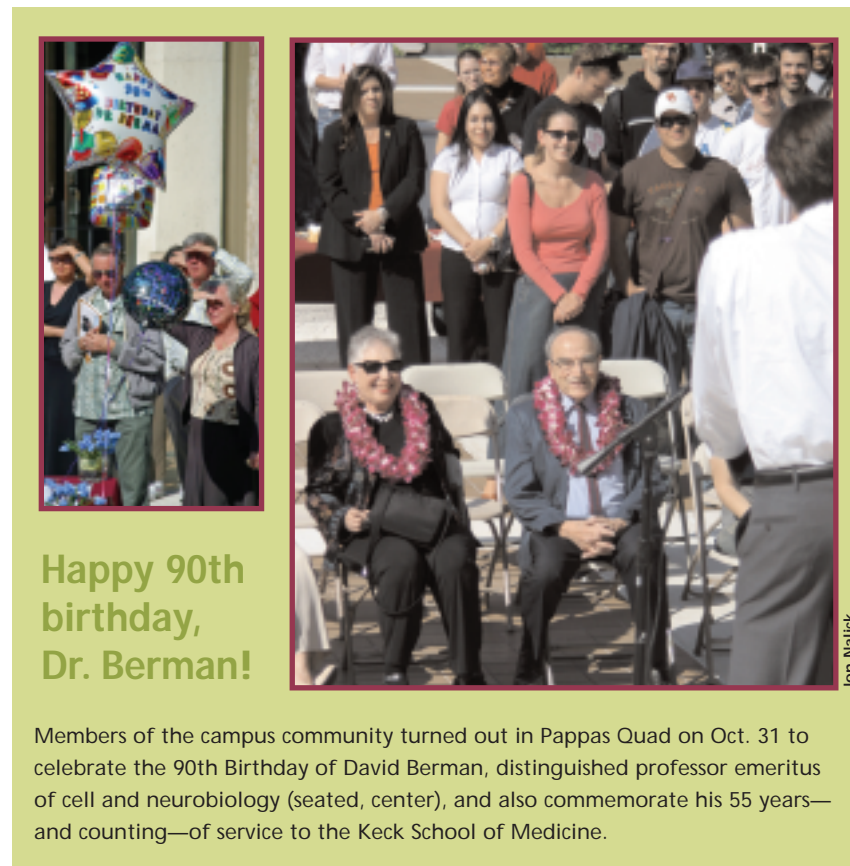
On Oct. 28, the MWD increased its

“For every dollar spent in fluoridation, we’re talking about \$38 saved in dental bills. Few public health measures have such a favorable cost-benefit ratio.”

— Eugene Sekiguchi, USC School of Dentistry associate dean for International, Professional and Legislative Affairs

fluoride levels from 0.1-0.4 parts per million to 0.7-0.8 parts per million, a level that both the California Department of Public Health and the U.S. Centers for Disease Control and Prevention (CDC) recommend for optimal dental health.

Sekiguchi was part of the statewide



Happy 90th birthday, Dr. Berman!

Members of the campus community turned out in Pappas Quad on Oct. 31 to celebrate the 90th Birthday of David Berman, distinguished professor emeritus of cell and neurobiology (seated, center), and also commemorate his 55 years—and counting—of service to the Keck School of Medicine.

USC medical team delivers needed aid to Liberia

By Katie Neith

In the midst of escalating civil war, Kathryn Challoner was evacuated from Liberia by the U.S. Embassy in 2003 when rebels invaded the capital city of Monrovia. This fall, she went back to the country as it struggles to rebuild after years of strife.

Challoner is co-director of the division of international emergency medicine in the Department of Emergency Medicine at the Keck School. Armed with medical supplies, teaching materials and a team of two other Keck faculty, two emergency medicine residents, three nurses and three Keck medical students, she spearheaded a trip in September to help aid a country desperately in need.

“Liberia is a country on the edge—the infrastructure is in ruins, 85 percent of the population is unemployed, there are 35 Liberian physicians left and even basic resources are missing,” said Challoner. “If the country is to emerge with any degree of stability after civil war, partnerships need to occur to help build capacity.”

This was Challoner’s 11th trip to West Africa and her fourth visit to Liberia.

She and her team transported and delivered more than 600 pounds of antibiotics and other medical and surgical supplies donated by Direct Relief International, Operation USA and Medical Assistance Program International. Challoner’s colleagues donated teaching materials and manuals, which helped the team teach a free three-day medical symposium at the A.M. Dogliotti School of Medicine and

alliance of oral health experts who lobbied state and local legislators to increase fluoridation levels of municipal water supplies. Other members of the coalition included USC School of Dentistry Dean Harold Slavkin, faculty members Charlie Goldstein and Stanley Heifetz, and Tim Collins, dental director for the Los Angeles County Department of Health Services.

Heifetz, a clinical professor in the school’s Division of Health Promotion, Disease Prevention and Epidemiology and resident expert on fluoridation practices, said California lagged far behind the rest of the nation in fluoridation of public water. In 2000, the CDC reported that less than 29 percent of the

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USC researchers show that peer pressure can help reduce drug use in teens

By Jennifer Chan

High-risk teenagers who participate in peer-led substance abuse prevention programs reduce their drug use by approximately 15 percent versus traditional curricula, suggests a study led by USC researchers.

The study appears in the November 2007 issue of the journal *Addiction* and is now available online.

"Most substance abuse prevention programs disseminate information about the bad effects of drugs and teach resistance skills without considering the impact of peer influence," said Thomas Valente, assistant professor of preventive medicine at the Keck School of Medicine. "Generally, our study emphasizes the power of peers. We found that social network-tailored prevention curricula can be very successful in achieving long-term behavioral changes in teenagers."

The study compared substance use among students participating in the prevention program Project

Towards No Drug Abuse (TND), traditionally led by a health educator or teacher, to the modified peer-led Project TND Network.

TND held interactive discussions at the classroom level while the TND Network divided the students into smaller groups composed of their friends and increased the number of group activities while a student-chosen leader led the discussion.

Approximately 550 students from 14 alternative high schools in Southern California completed surveys given before the program and again approximately a year later. The average age of the participants was 16 years old.

The study assessed data on their use of tobacco, alcohol, marijuana and cocaine. Students were assigned randomly by classroom to receive one of the two curricula or to the control group.

"Reducing drug use among the high-risk teen pop-

ulation at these alternative schools is tough," Valente said. "It is encouraging to see this type of positive influence among students who live and go to school in challenging environments."

However, the study also found that students with a peer environment that supports substance use did not benefit from the interactive program. Students with substance-using friends increase their own use in the peer-led condition.

"Peer influence can go both ways. Some students benefited because of the positive social influence of their friends, while others were harmed by negative influence of their substance-using peers," Valente concluded. "Programs that incorporate this type of interactive programming can be very effective, but they depend on how peer influence is channeled."

The National Institute on Drug Abuse funded this study.

ETCETERA

W. James Gauderman, associate professor of preventive medicine at the Keck School of Medicine, did not have to travel all the way to Washington, D.C., to have his voice heard by U.S. lawmakers.

He only had to go as far as San Bernadino, where he testified Oct. 10 at the U.S. Senate Committee on Environment and Public Works field hearing on "Air Pollution Challenges for California's Inland Empire," organized by committee chair Sen. Barbara Boxer (D-Calif.).

Gauderman discussed results of the USC Children's Health Study, which includes the smog-plagued towns of Riverside, Mira Loma, Upland and San Dimas. The USC research shows that children who breathe polluted air face an increased risk of asthma and stunted lung development, effects that can adversely impact health well into adulthood.

"Reducing levels of air pollution in Southern California is essential," Gauderman told the committee. "Our health and our children's health depend on it."

Shaul G. Massry, Professor Emeritus at the Keck School of Medicine, will be honored on Nov. 20 by the University of Padua, one of the oldest and most prestigious universities in Europe. He will be receiving an Honorary Doctorate in



Medicine and Surgery from the University. Massry already holds 12 honorary doctoral degrees from many universities throughout the world, including the distinguished Universities of Bologna and Prague.

Children's Heart Center at Children's Hospital and Regional Medical Center, Seattle, Wash has appointed **Mark Lewin** as chief of the division of cardiology and co-director of Children's Heart Center. Lewin has been an attending cardiologist at Children's Hospital since 2001. He had been serving as the interim chief of cardiology since late February. He has been co-director of Cardiac Echocardiography at Children's and is an associate professor of pediatrics at the University of Washington School of Medicine. He is also spearheading the formation of the Prenatal Diagnosis and Treatment Program at Children's Hospital.

The Postdoctoral Association of Keck School of Medicine hosted a luncheon for about 50 postdocs at the Health Sciences Campus on Oct. 30 to share information about the organization and its mission.

The group, which consists entirely of postdoctoral research scholars, seeks to improve the daily life and morale of scholars at Keck School and Norris Comprehensive Cancer Center.

For more information visit www.usc.edu/schools/medicine/school/offices/scientific_affairs/keckpda or contact keckpda@usc.edu.



Kathryn Challoner (front row, standing) and her team delivered more than 600 pounds of antibiotics and other medical and surgical supplies.

LIBERIA: USC relief effort aims to restore hope

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JFK Hospital, and provide clinical medicine and bedside teaching at two hospitals.

Challoner credits the success of the trip to her supportive colleagues, her dedicated team members and her Liberian counterpart, Benedict Kolee, an intern in Ghana who was a scholarship recipient of Challoner's and the medical student who drove her through a war zone to safety at the U.S. Embassy in 2003.

Despite the challenges of international emergency medicine, Challoner remains committed to serving the sick and needy of the world—an aspiration she's had since childhood. And she def-

initely plans on returning to Liberia.

"Liberia wants us to come back," said Challoner. "The people there are very resilient but lack hope. They have to believe that there's a future that they can be part of, which will require partnership and support from the global health community."

For medical students interested in international relief efforts, Challoner recommends going with established programs with leaders who have had field experience.

For more information on the division of international emergency medicine, visit http://www.usc.edu/schools/medicine/departments/emergency_medicine/international.

USC study identifies strong links between oral cancer incidence and ethnicity

By Veronica Jauriqui

In the first epidemiologic study of oral cancer in ethnic subpopulations in California, two researchers from the USC School of Dentistry have identified a strong relationship between the incidence of oral cancer and race and ethnicity.

Satish Kumar and Parish Sedghizadeh, clinical professors in the school's Division of Diagnostic Sciences, along with Lihua Liu from the Keck School of Medicine's Department of Preventive Medicine, gleaned through 20 years of records from the California Cancer Registry (CCR)—the state's cancer surveillance database—for the incidence rates of invasive squamous cell carcinoma, the

most common form of oral cancer.

The good news about oral cancer: it has been on the decline for the past two decades.

But the researchers discovered that different ethnic groups living in California manifest the disease very differently.

African Americans and Caucasians, who have the highest oral cancer rates, are most likely to develop cancer of the tongue.

Among Asian populations, Koreans had the highest incidence of tongue cancer, while Southeast Asians were more likely to develop the disease in the buccal mucosa, or inner cheek. Filipino women have the highest incidence of cancer of the palate.

The research team theorized that cultural habits are to blame.

Their findings will be published in an upcoming issue of the journal *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology and Endodontology*.

Though the cancer will claim the lives of 7,500 Americans this year, it is the most diagnosed cancer in many developing countries—including India, China and Vietnam.

Up to two-thirds of oral cancers are caused by tobacco or alcohol use, according to the Oral Cancer Foundation.

Kumar and Sedghizadeh theorized that groups who engaged in these high-risk behaviors would also experience higher rates of oral cancer. They were right.

"From what we know of how the cancer develops, we can extrapolate that cultural habits and lifestyle choices are directly linked to the prevalence of oral cancer in certain groups," Kumar said.

For example, African American and Caucasian men, with the highest rates of cancer of the tongue, also have the highest rates of cigarette smoking in the state.

In Asian groups, Koreans have the highest cigarette smoking rates. The practice of chewing tobacco, or areca nut, most common in South Asian cultures, may account for that group's likelihood of developing the disease in the

inner cheek.

The high rate of palatal cancer among Filipino women could be attributed to the practice of reverse smoking, when the lit part of the cigarette is concealed inside the mouth.

"The lit part of the cigarette contains the most carcinogens and heat, and if held near the palate could account for these statistics," Sedghizadeh said.

The study represents the first effort to analyze the epidemiology of oral cancer from statistics gathered by the CCR.

"Basically we had a trove of information that had never before been accessed," said Sedghizadeh. "People have looked at breast and prostate and other types of cancers, but no one had mined this field for oral cancer statistics."

The research team hopes their findings can help tailor oral cancer prevention messages aimed at particular ethnic groups.

"If we are aware that certain subsets are getting a particular kind of oral cancer, we can develop educational materials tailored to that particular risk activity and that particular group," Sedghizadeh said.

"Ultimately we realize the need to increase awareness not just for the individual," Kumar said, "but for their entire community as well."



LAC+USC SURGICAL UNIT HONORED—On Sept. 18, Los Angeles County Supervisor Gloria Molina honored the LAC+USC Medical Center Intensive Care Unit Surgical Unit for their ongoing efforts to assist critical care patients and their families. Above, the family of former patient Luis Sanchez, represented by son Arturo Sandoval (right), delivered a heartfelt letter to the Supervisor on behalf of his family praising the unit's dedicated doctors and nurses who cared for their father earlier this year. Standing among members of the Sandoval family and the Surgical Unit, USC physician Donald Green (left) accepts Sandoval's congratulations on behalf of the unit.

USC Pain Center to sponsor Dec. 2 fundraising walk

The USC Pain Center at the Keck School of Medicine has announced the first "Quench the Fire 5K Run/Walk."

The event, which is expected to be annual, will raise awareness for chronic pain conditions, such as Reflex Sympathetic Dystrophy (RSD). All proceeds will benefit the USC Pain Center. The funds will be directed for clinical research and trials, patient education and community outreach.

The run/walk will take place on Dec. 2, beginning at 8:30 a.m. at El Dorado Regional Park East in Long Beach. A one-mile fun walk and a kids' fun run also will be part of the morning's activities.

For more information, or to help with the event, email 5k@uscpain.org or visit <http://www.helpforpain.com/Race-info.htm>.

WATER: Fluoridation of water called long overdue

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state's population received fluoridated water. Only five other states had lower percentage numbers.

"California was pretty close to the bottom of the list when it came to fluoridation," Heifetz said.

"This represents a sizeable increase," Heifetz said. "We will definitely see a profound improvement in oral health in our communities."

Fluoride is a naturally occurring mineral that helps teeth resist decay by strengthening the protective layer of tooth enamel. It also can reverse newly formed cavities.

Its health benefits have been touted since the 1940s when the first communities began fluoridating their drinking water, said USC School of Dentistry Dean Harold Slavkin. Data suggests that fluoridation can reduce decay by 30 percent, he said.

"In Los Angeles County, we have several million people without access to routine dental care, especially in the vulnerable populations of children and the elderly," he said. "Fluoridation of drinking water can improve the quality of life of more than half a million peo-

ple just in Los Angeles County alone."

State legislators passed a bill in 1995 to fluoridate all of the state's water, said Slavkin, "but without any financial support."

When First 5 LA—a California initiative that funds services directed at children—approved a \$20 million grant to water boards and municipalities to upgrade their fluoridation processes, it was the boon fluoridation advocates were seeking.

"Like immunizations against infectious diseases, fluoridation is an inexpensive and highly effective adjunct to reduce the prevalence of tooth decay," Slavkin added.

The MWD estimates that the cost to increase fluoridation levels will amount to less than one dollar per family per year. But Sekiguchi said that could translate into much more saved by avoiding costly dental services.

"For every dollar spent in fluoridation, we're talking about \$38 saved in dental bills," he said. "Few public health measures have such a favorable cost-benefit ratio. And in the end, we're saving teeth and improving our region's oral health."

In Case of An Emergency...

Visit the USC Web:
<http://emergency.usc.edu>

This page will be activated in case of an emergency. Backup Web servers on the East Coast will function if the USC servers are incapacitated.

Call the Emergency Information Phone:
213-740-9233

The emergency telephone system can handle 1,400 simultaneous calls. It also has a backup system on the East Coast.

Calendar of Events

The HSC Calendar is online at www.usc.edu/hscalendar

Saturday, Nov. 10

9 A.M. "Evaluation and Treatment of Bladder Symptoms in the Female Patient," David Ginsberg, USC. KAM Mayer Aud. Info: (323) 442-2555

10 A.M. "Male Lower Urinary Tract Symptoms: Bladder and Prostate," David Ginsberg, USC. KAM Mayer Aud. Info: (323) 442-2555

11:15 A.M. "Erectile Dysfunction," David Penson, USC. KAM Mayer Aud. Info: (323) 442-2555

Monday, Nov. 12

NOON. "Post Transplant Immunology," Yasir A. Qazi, USC. GNH Drs. Dining Rm. A & B. Info: (323) 226-7307

Wednesday, Nov. 14

7 A.M. Medicine Grand Rounds. "Typhoid Fever," Joseph Cadden, USC. GNH 1645. Info: (323) 226-7591

11 A.M. USC Family Medicine and Regency Park Oak Knoll Assisted Living: Health Awareness Discussion. "Diets for Medical Conditions." 255 S. Oak Knoll, Pasadena. Info: (626) 578-1551

NOON. Renal Grand Rounds Conference. "Vascular Access," Vincent Rowe, USC. GNH 6441. Info: (323) 226-7307

NOON. IGM Distinguished Speakers Seminar Series. "Inter - and Intra - Species Sequence Comparisons: Deducing Genome Function in Health and Disease," Eric Green, National Inst. of Health. CSC 240. Info: (323) 442-1144

NOON. USC Ctr. for Excellence in Research: Research Salons. "University, Inc.: How Far Should the Privatization of Higher Education Go?" Jennifer Washburn, New America Foundation. CUB 329. Info: (213) 740-6709

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 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.

4 P.M. USC Ctr. for Excellence in Research: Research Workshops for Investigators. "Developing & Submitting a DOD Grant Application," James Murday, USC. CUB 329. Info: (213) 740-6709

Thursday, Nov. 15

NOON. USC Research Ctr. for Liver Diseases. "Mitochondria and Hepatitis C: Role in Pathogenesis, Replication and Innate Immunity," Steven Weinman, Univ. of Texas. HMR 100. Info: (323) 442-1283

Monday, Nov. 19

NOON. Fellow's Didactic Teaching Conference. "NephSAP: Critical Care," Mitra K. Nadim, USC. GNH Drs. Dining Rm. A & B. Info: (323) 226-7307

NOON. Fellows' Didactic Teaching Conference. "NephSAP: Critical Care," Mitra K. Nadim, USC. GNH Drs. Dining Rm. A & B. Info: (323) 226-7307

4 P.M. "Research in Progress," Jayakumar Vidhun, USC. GNH 10-340. Info: (323) 226-7307

Wednesday, Nov. 21

7 A.M. Medicine Grand Rounds. "Acute Alcoholic Hepatitis," Andrew Stolz, USC. GNH 1645. Info: (323) 226-7591

NOON. Renal Grand Rounds Conference. "How the Body Senses Potassium Intake and Adjusts Potassium Excretion," Jang H. Youn. GNH 6441. Info: (323) 226-7307

Monday, Nov. 26

NOON. Fellow's Didactic Teaching Conference. "Renal Physiology (Regulation of GRF, RF, TGF)," Janos Peti-Peterdi, USC. GNH Drs. Dining Rm. A & B. Info: (323) 226-7307



FUN-SIZED TRICK-OR-TREATERS—Children from the USC Childcare Center swarmed USC University Hospital on Halloween, collecting candy and smiles before stopping at Pappas Quad to show off their costumes. Clockwise from above left: preschool teacher Patty Narvaez makes for a happy witch as she watches children in the quad; Kryptonian superhero Daniel Nalick and firefighter Jonah Dayan play tag; and (from left) Keck School of Medicine Development Director Kavita Munjal and her son Aman Sen take a break to eat treats.

Photos/Jon Nalick

Classes at the click of a mouse—USC on iTunes U

Thanks to a new program called USC on iTunes U, anyone with a computer, Internet access and the nearly ubiquitous iTunes software can download free recordings of university lectures, musical performances and other presentations.

Faculty members have been using USC on iTunes U to make course materials available to students on a password-protected basis since last spring. Since then, University Public Relations has joined with USC's technology-enhanced learning and distance learning team to create the public site, which debuted on Sept. 4.

The program, a partnership between USC and Apple Inc., is another way in which the university is using technology to augment coursework for students, provide information to prospective students and others who would like to learn more about the school and help alumni stay connected with their alma mater.

To explore the site, go to <http://itunes.usc.edu> and click on the "public access" button. For information about the public USC on iTunes U site, contact Ginny You at (213) 740-6892 or Annette Moore at (213) 821-5933.

HSC NEWSMAKERS

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

A Nov. 5 *Los Angeles Times* article quoted OB/GYN **Thomas Goodwin** about bed rest during pregnancy.

A Nov. 5 KABC-TV online article quoted radiology oncologist **Parvesh Kumar** about a potential new treatment for tumors using radio waves.

A Nov. 5 *Washington Post* article featured research led by environmental health expert **Scott Fruin** showing that nearly half of Los Angeles residents' exposure to harmful air pollutants can occur while they are in the car. The *Dallas Morning News*, KABC-TV Channel 7,

KTLA-TV Channel 5, KPCC-FM, United Press International, City News Service and the *Daily Breeze* also ran stories on the study.

On Nov. 2, KTTV-TV Channel 11 quoted pharmacologist **Roger Clemens** about the recall of millions of frozen pizzas due to E. coli.

A Nov. 1 *New York Times* article quoted neurologist **Jeff Victoroff** about a 10 year-old boy who admitted to starting one of the Southern California wildfires with matches.

A Nov. 1 *Science Magazine*

article quoted diabetes expert **Thomas Buchanan** about a new study that found a connection between the protein menin and gestational diabetes in mice.

An Oct. 31 ABC News online article quoted psychiatrist **Bruce Spring** about why veterans may avoid medical help for depression because of fear of stigma.

An Oct. 30 Reuters article featured a study led by public health expert **Thomas Valente** that found that substance use programs with peer leaders appear to be effective in limiting abuse.

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