

## Story on Lead in Local Elementary Schools

Graduate students in UNLV's School of Public Health show that research can make a difference in the lives of children living in Southern Nevada through their work with the Childhood Lead Poisoning and Prevention Center.

Housed under the environmental and occupational health program and led by Associate Professor Shawn Gerstenberger, this center provides lead screening and intervention for Nevada children to reduce their exposure to environmental lead and prevent its long-term devastating effects.

According to graduate student Heather Fels, lead poisoning is a major cause of learning disabilities and behavioral issues, and can cause delays in a child's neurological development.

"Lead is the most preventable form of poisoning in children, so there is no excuse for it," Fels said. "That's why it is a public health concern."

Still, a report from the Center for Disease Control revealed that between the years 1999 and 2000, 434,000 U.S. children tested positive for lead poisoning.

Former research has revealed dangerous levels of lead in things like paint, gasoline, and jewelry. But a major source of UNLV's exploration focuses on a less likely substance – candy.

Fels and fellow graduate research student Elena Cabb are using a digital mobile lead analyzer called an XRF to get an instant analysis of lead content in imported candy found at flea markets, street vendor stands, and ethnic specialty stores around the Las Vegas Valley.

"We are testing candies from Mexico, Argentina, Brazil, Venezuela, and other countries throughout Latin America and will possibly compare them to candy made in the U.S.," Fels said.

Fels recently spent three weeks purchasing suspect candy from flea markets around the southwestern U.S., and even traveled to Tijuana, Mexico.

"For me, this project is an ideal coupling of the scientific issues while also addressing social issues, social awareness, education, and health disparities because we do plan on going out into the community to talk with children, parents, teachers



Graduate students Heather Fels and Tracy Donnelly test candy for lead content using a digital mobile lead analyzer.

– anybody who can be affected by consumption of these candies," Fels said.

Since UNLV began research on this project last spring, more than 4,000 pieces of candy have been examined. Of the more than 100 different types of candy examined so far, 25 tested positive.

According to Gerstenberger, finding out the real source of the lead allows researchers to better address the problem.

"We are breaking down the research and really trying to figure out which part of the candy contains lead," said Shawn Gerstenberger, associate professor of occupational and environmental health. "That's what sets our program apart from other projects like this around the country."

The findings of this research will be used by the Clark County Health District to develop a public awareness campaign to alert parents and children about lead in candy.

"The Health District needs scientific proof in order to take action," says Cabb. "Once the government had scientific data that there was lead in paint, they acted immediately. "Now,

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**Mary Guinan, M.D.  
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**Harvey Wallmann,  
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Interim Director  
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Sciences

## Message from the Deans

*Dear Alumni and Friends,*

Greetings to you from UNLV and the Division of Health Sciences. Over the past two years we have worked with President Carol C. Harter and our faculty to reorganize the College of Health Sciences into the Division of Health Sciences, which now includes the School of Nursing, the School of Public Health, and the School of Health and Human Sciences. With President Harter's strong leadership UNLV's health sciences program now enjoys a greater presence in Las Vegas and Southern Nevada and is a vital, integrated partner in the university's mission of teaching, research, and service to our community.

As the leadership team of the division, we are excited about the future of Health Sciences at UNLV, and our faculty and students share this optimism as the continued growth of the division translates into a richer, more diverse, and positive educational experience for our students and tomorrow's leaders.

The launch our bi-annual newsletter will bring you news from the division, update you on the progress of major initiatives in each of the schools, and invite you to reconnect and participate in our many exciting programs. Your involvement is crucial if the division is to serve the best interests of our community, and realize our amazing potential. We know we can count on you. Together we can create a Division of Health Sciences that boasts of an outstanding faculty, student body, alumni, and friends dedicated to teaching, research and service. Please feel free to contact us at any time. We look forward to hearing from you and seeing you back on the UNLV Campus.

Sincerely,

**Carolyn Yucha, Mary Guinan, and Harvey Wallmann**

## Elementary Schools

*continued from page 1*

everyone knows that lead-based paint is dangerous.”

UNLV will also assist the district by providing researchers and equipment like the XRF to investigate additional sources of lead contamination in the community. Further testing with other high-tech gear evaluates other chemical levels, such as mercury.

“This is an opportunity for the university to have some of its graduate students pursue projects that could serve as their thesis- but more importantly, as a community service by helping us understand the issue of lead poisoning in youth in the community,” Gerstenberger said.



**Candy found in local retail stores may contain lead, which could have dangerous affects on local school children.**

## Center for Health Disparities Research

The UNLV Center for Health Disparities Research (CHDR) is a research center within the School of Public Health. Its mission is to conduct academic and community-based participatory research that will guide public policy, program development, and data collection throughout Nevada in an effort to reduce and ultimately eliminate health disparities. One of the center's primary efforts is a project to plan, implement, evaluate, and disseminate effective interventions to reduce and eventually eliminate diabetes-related health disparities among the Latino population in Southern Nevada.

Diabetes disproportionately affects Latinos, the fastest growing population in Southern Nevada. Disease prevalence, complications, and premature death result not only from the lack of information but from health behaviors, discrimination

in health processes and systems, psychosocial and socio-cultural influences, and socioeconomic related factors such as differential access to health care.

Through key partnerships with the Southern Nevada Area Health Education Center, Latinos United Celebrating Health (LUCES), and the Nevada Alliance Against Diabetes, the CHDR will develop a research relationship with the Latino community of Las Vegas to develop, design, conduct, analyze, interpret, and disseminate research to prevent and reduce the incidence of diabetes and eliminate population disparities. This project will build on existing capacity, resources, and partnerships to develop an infrastructure able to support community-based research relative to health disparities among the Latino population.

## Department of Health Care Accreditation

The Department of Health Care Administration & Policy is in the process of applying for re-certification of its undergraduate degree program by the Association of University Professors of Health Administration (AUPHA). AUPHA certification is the undergraduate equivalent of graduate program accreditation for HCA academic programs. The undergraduate program was first certified in 1992 and re-certified in 1999. The program was reviewed for re-certification by AUPHA reviewers this past June at the AUPHA annual meeting in Boston, MA, and the reviewers are scheduled to make their recommendation to the full board this fall.

The department is also in the process of developing an on campus Master in Health Care Administration (MHA) degree program at UNLV. Currently, the program is in the pre-proposal approval phase.

The department has an undergraduate field practicum program that places HCA students in local health services organizations, which gives them "hands on" health services management experience. The department is always seeking new practicum sites, and it is willing to work with any interested health services organization that would like to precept an HCA student. Interested organizations should contact Professor Chris Cochran at (702) 895-1400 or at ccocharn@ccmail.nevada.edu.

## We Want to Hear from You!

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## High-school Students Get Hands-on Training in Sports Medicine

Nineteen high school students from throughout the western United States and Nevada came to UNLV in August to learn about sports medicine at the first Desert Sports Medicine Workshop.

During the workshop, which was conducted by UNLV's Department of Kinesiology, students visited a campus cadaver anatomy laboratory and listened to interactive lectures on specific injuries. The day-long event ended at the university's athletic training facilities, where students got hands-on training in evaluating, treating, and rehabilitating the injuries they studied throughout the day. Faculty from the Athletic Training Education Program, graduate assistants studying kinesiology, and staff and graduate interns from the UNLV Athletics' Department, including the department's team physician, facilitated the workshop.

"The workshop provided high school students with a taste of what the sports medicine field is like at the college level," said Professor Brett Magnus who heads the project. According to Magnus, UNLV is the only accredited sports medicine program of its kind in the state of Nevada. He also noted that many of the college students who complete the program go on to work in high profile careers with athletes on the high-school, college, and professional level.

Magnus hopes to expand the athletic training program by making the Desert Sports Medicine Workshop an annual event. Plans are also underway to partner with a university in Japan to offer an exchange program for UNLV students who wish to study sports medicine abroad.

For the past two years, several students have come from Japan to complete UNLV's sports medicine program. An exchange program would afford UNLV students who wish to study sports medicine abroad the same opportunity.



## Adult Exercise Program is a Win-Win

The kinesiology department is helping local men and women reduce their stress level, trim their waist line, and develop a sensible exercise program through its Adult Exercise Program. The program, which has been offered for more than 25 years, is designed for the inactive person between the ages of 30 and 65 who would like to improve their physical fitness level, reduce their coronary risk factors, and improve the aging process while also contributing to UNLV's research efforts.



Students participate in UNLV's adult exercise program while providing valuable research for the kinesiology department.

The class meets five days a week from September through August and begins with fitness evaluations, body composition testing, a

blood profile, and other physical assessments to determine each participant's current fitness status. Supervised class sessions include stretching, strength training, aerobic exercise, and a cool-down period. The results of their efforts are analyzed by the kinesiology department to determine which factors of daily, regular exercise play a role in the development of heart disease and the aging process, and the effect of short term exercise on selected physiological variables.

Graduate students studying exercise physiology work with Professor Lawrence Golding to facilitate the program. Current enrollment is now more than 100, including 25 individuals who have been coming back for more than 20 years.

Class sessions are held Monday through Friday at the university's McDermott Physical Education complex and special discounts are given to full-time UNLV faculty and staff, UNLV Alumni Association members, Performing Arts subscribers, and UNLV sports season ticket holders. For more information about this program, you can contact Professor Golding at (702) 895-3766 or [lagolding@aol.com](mailto:lagolding@aol.com).

## Balance Training Helps Patients with Parkinson's disease

UNLV researchers in the departments of physical therapy and kinesiology are working on a study aimed at finding new strategies to help Parkinson's disease patients with postural instability.

Characterized by loss of balance, postural instability is a cardinal sign of the disease and the only symptom for which there is no treatment or medication currently available. That's why physical therapy Professor Merrill Landers and Gaby Wulf, who is a faculty member in the department, are working with local neurologists and with the American Parkinson's Disease Association to study the use of balance training as a possible cure for the symptom.

"I have a passion for Parkinson's disease and want to see some improvements in what we are doing. I think we are on a good line of research toward improving the lives of people with Parkinson's disease by helping to improve their balance.

According to Landers, balance training – or the learning of balance tasks – seems to be the only thing thus far that has helped patients with postural instability.

The patients come to UNLV and are trained here based on a referral from their health care provider. Graduate students are in charge of training the patients, collecting research data, and recruiting new patients.

## Development of Image-based computational models

Dr. Phillip Patton received his PhD in Medical Health Physics from the University of Florida. He joined the Dept. of Health Physics as an Assistant Professor in October, 2000. Dr. Patton's primary research focus is on the development of image-based computational models that more accurately predict radiation doses to bones during radionuclide therapy of cancer patients. This work is being done in collaboration with colleagues at the University of Florida and is supported by the National Institutes of Health. Dr. Patton is also collaborating with physicists and clinicians in Las Vegas, and Tucson on projects that seek to optimize the placement of radioactive seeds in the treatment of prostate cancer patients.

## Clinical Laboratory Science Program

The Clinical Laboratory Science (CLS) program accepted 12 students for the fall 2005 class from 19 applicants. The faculty is currently developing several post-baccalaureate certificate programs to facilitate laboratory certification and licensure for students who already have a BS degree in one of the basic sciences such as biology or chemistry, with the hope that these programs open to students by Fall 2006.

The CLS Program also welcomes their newest faculty member, Professor Deborah Keil, who will be teaching the clinical chemistry courses. In addition to her CLS undergraduate degree and ASCP certification, Professor Keil has a doctorate in biology with training in immunotoxicology from Mississippi State University. Professor Keil comes to UNLV after spending three years with the National Institute for Occupational Safety and Health examining immunotoxicology issues associated with exposure to various occupational and environmental chemicals such as perchlorate, trichloroethylene, JP-8 jet fuel, and perfluorinated compounds. She also taught and mentored for six years in the CLS Program at the Medical University of South Carolina.

## Two Faculty Grants for Newborn Care Simulator and Mr. Sims

Thanks to two faculty grants, the School of Nursing has received some new equipment for its skills lab. The first piece of equipment, funded by the university's student government organization is a Newborn Care Simulator that will enhance the obstetrical nursing curriculum. The UNLV Alumni Association funded the second piece of equipment, which is a ventilator to be used with Mr. SIMS, a high-tech patient simulator.

## Ruby Marian, Congressional Gold Medal for Volunteer Work

School of Nursing student Ruby Marian received a congressional gold medal in June for her volunteer work. Marian is finishing her fourth semester at UNLV and is an officer with the Student Nurse Association.

### Excellence for Women's Health Education Grant

Physiologic effects of jazz dancing, coping responses in cancer, and examining mothers with low birth weight and problematic infants are just a few of the seven studies recently conducted by the School of Nursing's Center for Excellence in Women's Health. Established through a grant from the U.S. Department of Education and directed by Professor Carolyn McCarroll, the center takes a multidisciplinary approach to women's health and supports joint research efforts of faculty from various departments across campus. Grant activities are aimed at providing research and education opportunities in women's health from birth, growth, maturity, and aging. A major component of the grant is the availability of funding to support research feasibility projects or educational outreach projects in all aspects of women's health.

### Health Promotion Study

Jean Henry and Chuck Regin (SPH) along with Greg Levitt (COE) recently completed a pilot study involving the 2005 Nevada Legislative session. The study was designed to verify the impact of an electronic tracking system on participation in self-selected health promoting activities. Results suggest that awareness about and participation in health promoting activities can be affected through web-based interventions.

Regin and Henry continued their on-going cohort research of firefighter wellness and fitness this past summer by collecting data from North Las Vegas Firefighter Cadets and Clark County Firefighter Cadets. Preliminary review of the data suggests that structured, supplemental fitness routines, completed outside the Rookie Academy regimens, can have a positive effect on select fitness levels, such as degrees of flexibility. This study is a component of a more

comprehensive public health research agenda that seeks, ultimately, to improve understanding of the various factors that influence wellness and fitness of firefighters throughout their career and their lifespan.

### School of Nursing Partners with Area Hospitals

This School of Nursing is partnering with three area hospitals to provide clinical training for undergraduate students using a teaching model known as the "Home Hospital Project." A nursing staff member from each of the participating hospitals, which include the University Medical Center, Valley Hospital, and Desert Springs Hospital, is assigned to work with eight nursing students. During their first semester, students spend one day per week in their assigned hospitals. Students will spend two days per week during the other three semesters of their nursing school curriculum as they complete clinical rotations in medical-surgical, critical care, pediatric, and obstetrical units.

"We believe that this program will provide benefits to the students, the hospitals, and to UNLV," says Dean of the School of Nursing Carolyn Yucha. "First, keeping students in the same facility may help them advance their skills more quickly because they will not need to reorient to a different facility each semester. The hospitals may benefit because if students feel comfortable in their assigned 'home hospital,' they are likely to apply there for employment after graduation and advance more quickly through new graduate orientation programs. Finally, UNLV benefits by needing fewer clinical instructors in this time of a national nursing faculty shortage."

This program will be evaluated over the next two years by Dean Yucha and Professors Rosemary Witt, and Susan Kowalski, to determine whether students assigned to a home hospital experience less anxiety and stress and improved academic

### "How Can I Help the Division of Health Sciences?"

Alumni and other friends of the division support the Division of Health Sciences attendance at special events, gifts to specific programs, and undesignated gifts for the deans to use as "venture capital" to support emerging needs in the college.

These undesignated gifts are part of our annual giving program—an ongoing effort to increase yearly donations to support the Division of Health Sciences directly. We invite you to support this vital effort through:

Membership in the Deans' Associates program. Your gift of \$1,000 or more to the deans' unrestricted source of funding makes the greatest impact in the Division of Health Sciences. We are pleased to recognize donors at this level with membership in the Deans' Associates program.

Pledges through the Rebel Ring Phonathon. In early 2005, students will phone our alumni and other friends to share division and department news, and ask for support specifically for these programs.

Year-End Gifts Using the Reply Envelope. Your gift to the Division of Health Sciences may benefit your 2004 tax return. Reply with your donation using the envelope included in this mailing, and along with your thank you letter, we will mail you a receipt suitable for your tax records. UNLV is a federally-recognized 501c3 organization.

We will be pleased to recognize you for your gift through any of these programs in our spring newsletter. For more specific information on how your gift helps the Division of Health Sciences, please contact Shaun Sommerer at (702) 895-5614.

# Invent the Future: Graduate Assistantships and Fellowships Support Health Sciences Students

As UNLV moves toward its goal of becoming a nationally-ranked research university, it strives to enhance the quality of education for students and the quality of life for the citizens of Nevada. The university is also working to improve the quality of life during education for its 5,600 graduate students. The Division of Health Sciences has made graduate fellowships and assistantships a top funding priority during the Invent the Future campaign.

“Graduate fellowships are critical to the advancement of graduate education as they provide the support students need to finalize their research and complete their theses and dissertations,” said Paul Ferguson, vice president for research and graduate studies. “Graduate assistants play an indispensable role with faculty, serving as research team members and augmenting classroom learning,” Ferguson added. “Additionally, the GAs themselves benefit from the experience. Serving in this capacity provides them with valuable professional development and enhances their graduate education.”

Graduate fellowships are scholarships which help fund graduate students’ tuition, research costs, or similar items in graduate programs. Graduate assistantships are similar, where students receive a nine-month stipend plus tuition wavers, but students must also spend 20 hours per week dedicated to instruction and/or research.

“In order to continue building UNLV’s reputation as a nationally recognized research university, support of graduate education is vital,” Ferguson said.

Environmental science program Professor Shawn Gerstenberger says that graduate students who receive support typically finish their masters or doctoral programs in half the time—two, rather than four, years. As the graduate coordinator for the School of Health & Human Services and the chair of the Graduate Faculty and Student Issues Committee, Gerstenberger knows that several students chose UNLV because they were offered graduate financial support and the opportunity to be directly involved in research projects.

“Good students are in demand. The greatest advantage to private support for graduate scholarships and fellowships is it allows us to recruit and retain the best and the brightest students, and provide them a richer learning environment,” Gerstenberger said.

Elana Cabb, a masters student in environmental and occupational health, says that her assistantship relieves the pressures of living expenses. It also helps her commit greater time to the research she and her peers are doing on contaminants in candy (see story page 1).

“I chose UNLV because of the graduate assistantship I was offered,” Cabb said. “I have had experience working together with faculty and advisers on projects, and they truly treat me as a professional.”

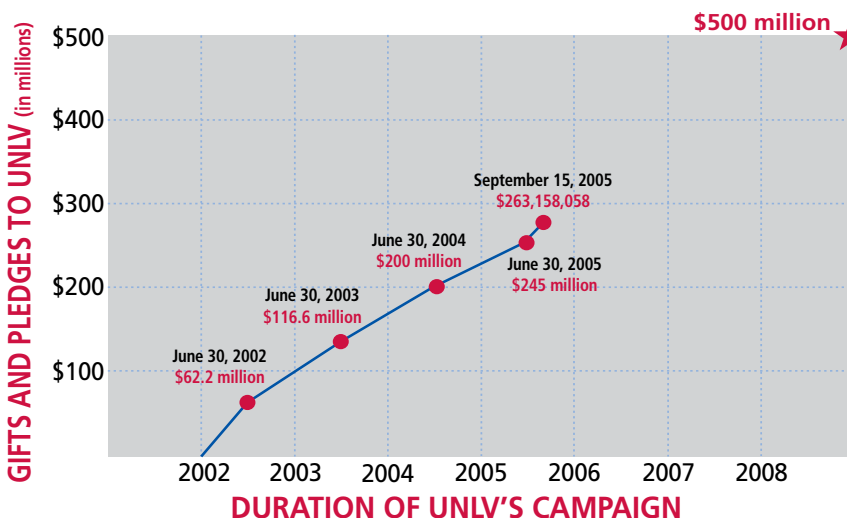
For programs like those in the Division of Health Sciences, private support is also essential to attract health care practitioners back to the classroom for advanced education. Fellowships and graduate assistant positions combined enable students to focus on their studies rather than pursue outside employment.

## Division of Health Sciences

### Campaign Funding Priorities

- Graduate student fellowships and assistantships
- Advising center support
- Equipment and tools for research
- Faculty opportunity funds
- Undergraduate student support

The division’s three schools have myriad opportunities for private support—each unique to the varied programs and centers in the Schools of Health & Human Sciences, the School of Nursing, and the School of Public Health. To learn more about each schools’ fundraising priorities, please visit [campaign.unlv.edu](http://campaign.unlv.edu).



**Invent the Future** is UNLV’s first comprehensive effort to secure the promises of tomorrow through a \$500 million fundraising initiative. With your help, private funding for students, faculty, research, facilities, and programs will map a course for Las Vegas’ next decade.



## Division of Health Sciences Fall 2005

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## After-school Program Aimed at Preventing Obesity in Children



Parents and elementary students learned about alternatives to sugar-laden beverages such as soda at a We Can! event this summer.



Elementary students play fruit tic-tac-toe while they learn about how they can prevent obesity in their own lives.

UNLV's Department of Nutrition has teamed up with the cities of Henderson and Las Vegas to help prevent overweight and obesity among youth between the ages of 8 and 13.

This collaborative effort, known as We Can! (Ways to Enhance Children's Activity & Nutrition), is a result of the National Institutes of Health (NIH) education program.

We Can! provides resources and community-based programs for parents, caregivers, and youth that focus on behaviors to encourage healthy eating, increase physical activity, and reduce sedentary time.

Students from the nutrition sciences department get a chance to build their resume by facilitating educational lessons and activities provided by the NIH. Program participants exercise, eat nutritious snacks, and even develop public service announcements targeting same-age peers on the topic of healthy lifestyle.

Selected by the NIH as one of 14 intensive program sites across the country to execute the We Can! program, the Southern Nevada team will implement programming in several local after school programs through June 2006.