The UNLV College of Sciences recently received a gift of $1 million from the estate of Jack J. Ross, a Las Vegas businessman and philanthropist. The gift will create the Jack and Fay Ross Family Endowed Fellowship Fund and will provide support for graduate students in UNLV’s Geoscience Department, a nationally recognized program with research concentrations in arid lands, soils, minerals, seismic studies, volcanoes, and environmental and climate issues of critical importance to Southern Nevada.

College of Sciences Dean Ron Yasbin observed, “Our gratitude to the Jack and Fay Ross family is immense. Their generosity and foresight provides vital support to recruit and retain the best geoscience students at UNLV.”

UNLV geoscientists strive to understand earth processes and develop solutions to Nevada’s and our nation’s most challenging geophysical problems. They study the origin and evolution of our planet; the chemical and physical properties of minerals, rocks, and fluids; the structure of our mobile crust, including its newly forming ocean floors and its ancient drifting continents; the history of life; and the human adaptation to earthquakes, volcanoes, landslides, and floods. The study of the earth is interdisciplinary, combining the knowledge of geology with a solid background in all sciences.

Geoscience students and faculty are often at work throughout the greater Las Vegas community. UNLV scientists serve as advisors to federal agencies looking to protect natural resources in the Las Vegas region, including Tule Springs. They are deeply involved with the Yucca Mountain Project, efforts to improve our safety and response to earthquakes, and projects at important environmental sites including Walking Box Ranch and the Red Rock National Conservation area. In addition, faculty and students pursue arid land and geothermal research projects around the globe in an effort to develop and introduce improved practices to Nevada.

“This wonderful gift will benefit our program for generations to come, enhancing the ability of our students to address important geological and environmental challenges facing Nevada. We look forward to bringing Ross Scholars to UNLV, to enhance our teaching and research capabilities, and to improve the quality of life for all Nevadans,” said Michael Wells, chair of the geosciences department. The first Ross Scholars are expected on campus in the fall 2008 semester.

The Jack and Fay Ross Family Endowed Fellowship will support graduate students in the geoscience department, including field research projects with faculty members. Left: Associate professor Terry Spell and Joe Kula, a Ph.D. student and recent graduate, explore New Zealand. Right: Professor Wanda Taylor (right) and former undergraduate Ray Schuth work in Hot Creek Range in northern Nye County, Nev.
MESSAGE FROM THE DEAN

In recent years the College of Sciences has experienced significant growth in the quality and quantity of undergraduates and graduate students.

Dear Alumni and Friends,

I recently announced my decision to leave the position of Dean of the College of Sciences, effective July 1, 2008, after five years of service. There are several personal and professional reasons why this is both the right decision and the right time. Upon leaving the dean’s office I plan to focus on a variety of issues, including my own research grants and the challenges associated with delivering outstanding math and science education to Southern Nevada’s students from pre-school through university. I look forward to working with my UNLV colleagues and associates in the Clark County School District to address this issue.

During my tenure as dean, I have had the pleasure of working with amazing groups of students, faculty, staff, alumni, and friends of the College of Sciences. Each group has been a constant source of inspiration and pride. Their accomplishments are impressive and diverse. The College of Sciences now stands first among UNLV schools in the acquisition of peer reviewed grant funds, in excess of $20 million in 2007. The quantity and quality of our scientific publications has garnered national attention. A National Science Foundation study recently placed us fourth in the nation, with a growth rate of 99 percent, in peer-reviewed publications from 1992-2002.

In recent years the College of Sciences has experienced significant growth in the quality and quantity of undergraduates and graduate students. The soon-to-be completed Science and Engineering Building will add additional luster to our college. The scope and quality of our student advising continues to improve, through the introduction of developmental advising, the hiring of a full-time graduate student advisor, and the initiation of a full-time pre-health advisor for our undergraduates planning to attend medical, dental, veterinary, and other professional health schools.

Our students are truly a wonderful group. The undergraduate and graduate councils continue to bring important issues to my attention and lobby for improved student services, and our many student organizations make contributions to UNLV and our community through their tireless efforts. I also wish to recognize our Advisory Board. Under the leadership of Pat Mulroy, this important group of business, political, community, and alumni leaders have helped highlight our accomplishments in the region, facilitated collaborations with public and private organizations, and provided me with crucial advice and counsel.

Essential to all of this activity is the support of our donors. Private funding is critical to the development of a great research university, and each and every dollar provided for student scholarships and fellowships, faculty research efforts, laboratories and classrooms, and other important initiatives is a measure of the trust you place in us. I hope you share my sense of accomplishment and pride in what we have achieved. I know you share my optimism and excitement for the future of the College of Sciences and UNLV.

It has been a pleasure serving as dean. Thanks for letting me come along for the ride.

Sincerely,

Ronald Yasbin
Dean, College of Sciences

Membership in the Dean’s Associates Program. This gift club recognizes donors who give $1,000 or more to support emerging opportunities in the college. Members will receive UNLV Magazine and invitations to campus and community events.

Invent the future, leave a legacy. Charitable giving can play an important role in planning for your family’s and your estate’s future. Your gift through a charitable gift annuity, bequest, pooled income fund, or other means can have a meaningful impact on the College of Sciences.

“How Can I Help the College of Sciences?”

For more information about giving to the College of Sciences, contact Nancy Strouse at (702) 895-2810 or nancy.strouse@unlv.edu.

Every gift counts. Your annual gift – no matter the amount – to your program of choice in the College of Sciences helps support student endeavors and academic excellence. Plus, your donation today is part of Invent the Future, UNLV’s 50th anniversary campaign. Give online at foundation.unlv.edu.
“Nanoscale Building Blocks for the Development of Novel Proton-exchange Membrane Fuel Cells,” will serve as the cover story for March 20 (volume 112) issue of the Journal of Physical Chemistry B. Authors of this article include chemistry department faculty Chulsung Bae, Bala Naduvalath, Philippe Weck, and Eunja Kim.

The article presents a detailed computational modeling of the mechanism of proton transport in a new class of sulfonated proton exchange membranes that are being synthesized in Bae’s laboratory. This research may have significant impact in fuel cell technology for automotive use. In proton exchange membrane, fuel cells’ electrical energy is generated from the chemical reaction between hydrogen and oxygen carried out in an electrochemical cell. The PEM membrane separates the hydrogen and oxygen fuels and enables proton transport across electrodes. For optimum performance in automotive applications the membrane should exhibit high proton conductivity and possess good thermal and mechanical stability.

In January, the College of Sciences presented the first UNLV Emerson Medal for Science Advocacy to Professor Bassam Z. Shakhashiri, the William T. Evjue Distinguished Chair for the Wisconsin Idea and director of the Wisconsin Initiative for Science Literacy at the University of Wisconsin, Madison.

This award is named in honor of David Emerson, UNLV professor emeritus, and is given to individuals who have made lasting contributions to the development of the sciences.

“Bassam Shakhashiri represents the best qualities found in academic research scientists,” said Ron Yasbin, dean of the College of Sciences. “His passion to educate and inform his students, his community, his nation, and himself has brought an appreciation and understanding of science to our world.”

Shakhashiri has elevated the public’s interest in science through advocacy and leadership. By teaching science literacy, he shows future musicians, artists, writers, performers, and scientists the intellectual and emotional links between science and the arts.

Shakhashiri visited UNLV to meet with students and faculty, and present a free public lecture. “I’m grateful for this recognition and pleased to see UNLV recognize the role that science plays in advancing the quality of life in society,” said Shakhashiri.

The National Science Foundation acknowledged the impressive growth of the College of Sciences in a special report, “Changing U.S. Output of Scientific Articles, 1988-2003.” The study noted that from 1992-2002, UNLV was the fourth fastest growing university in the nation by measure of its output of articles in the sciences and engineering fields. As other universities grew stagnant or cut back on expensive scientific research, UNLV brought top professors and researchers to campus.

During this period, publication of peer-reviewed articles, considered a key measure of productivity by a university, grew 99 percent at UNLV. “Faculty are [now] publishing in the most prestigious peer-reviewed publications,” said Associate Dean of Academic Affairs Carl Reiber.

This metamorphosis can be attributed to a new focus on research, faculty, and professors. Faculty such as Brian Hedlund, an assistant professor hired in 2003, received a prestigious NSF Early Career Development Award for his work discovering new organisms in Nevada’s hot springs.

Over the past year the College of Sciences raised over $20 million from the NSF, National Institutes of Health, the Department of Agriculture, Department of the Interior, and Department of Energy; making 2007 the most lucrative in the colleges history.

As faculty are receiving more funding, students benefit from better labs, increased opportunities for research, and access to top professors.
In recent years, through the generosity of donors, the College of Sciences has established a number of scholarships that provide partial support for graduate student education. These include a scholarship established by professor emeritus Donna Weistrop and her husband David Shaffer and a scholarship for a geoscience graduate student established by Maureen Wruck Panzer.

“Support for outstanding graduate students is essential to the health and well-being of a research university. In the College of Sciences, graduate students are an integral component of our teaching, research, and community service activities,” said Dean Ron Yasbin. “Our graduate students have come to Las Vegas from across the nation and around the globe for the opportunity to study with leading scientists and to work on state-of-the-art research projects.”

Longtime Las Vegans and generous UNLV supporters Mel and Ruth Wolzinger endowed the Wolzinger Family Research Scholarship. This annual award of up to $20,000 supports students in both the College of Sciences and the College of Engineering, and allows UNLV to compete for and retain the students coveted by our nation’s best universities.

Graduate students contribute to undergraduate education through their teaching efforts in classrooms and laboratories, and these students are integral to the research efforts of faculty across the college. In addition to completing dissertations, many graduate students are recognized as co-authors on important scientific articles and presentations.

Science and technology influence every aspect of our lives in this era of astonishing changes in communications, information processing, genetic engineering, materials sciences, medicine, transportation, and our understanding of the universe. Private support in the Invent the Future campaign for the College of Sciences will bring opportunities for these advances in our community, for our community.

Visit http://campaign.unlv.edu/sciences.html to learn more about the College of Sciences’ fundraising priorities.
Hatice Gecol, director of the Nevada State Office of Energy and energy/science advisor to the governor, visited the College of Sciences in December 2007. Gecol serves on the governor’s executive staff and advises him on all aspects of energy policy and development. She also works closely with the Nevada Department of Energy to address the growing need to promote energy independence.

While visiting, Gecol met with Clemens Heske, associate professor of chemistry, to discuss experimental approaches used to study surfaces and interfaces in devices for energy conversion. Gecol was particularly interested in the research efforts on hydrogen storage, where Heske’s group deposits individual single-walled carbon nanotubes on a substrate and then studies the interaction between the nanotube and adsorbed titanium, lithium and hydrogen atoms or molecules. For these studies, scientists at UNLV utilize spectroscopic tools in a multi-chamber ultra-high vacuum system and synchrotron radiation at the Advanced Light Source in Berkeley, California.

“The alternative energy research being conducted at UNLV is cutting edge. We have some of the best minds anywhere working together to find solutions that will address our future energy needs,” said Gecol.

Gecol also met with Frank Tussing, executive director of the Nevada Alliance for Defense, Energy and Business and a member of the college advisory board; together they met faculty and toured research laboratories and facilities. Collaborative research projects with national laboratories and scientific institutions around the globe involving thin film solar cells, nuclear fuel, hydrogen fuel production, storage, and consumption, organic interfaces, inorganic semiconductor devices, and bio-interfaces and liquids were among the topics discussed.

“Having visited some of the research labs and having met with many of the researchers in the alternative fuels area, I can truly state that it [UNLV’s laboratories] is world class and we can all be proud of the great research being done here,” said Gecol.

Student Essay Winner Describes UNLV in the Year 2057

To celebrate the 50th anniversary of the founding of UNLV, the College of Sciences offered an essay contest among our undergraduate and graduate students. Our students accepted the challenge to write an essay describing what UNLV and the College of Sciences would look like in the year 2057. Stephanie Musetto submitted the winning entry and received a $250 prize.

“Fifty Years from Now”
Stephanie Musetto

Fifty years from now. Not a long time.

If the predictions of the majority of scientists come true, the world will be a vastly different place to live. Deaths from global warming will double in just 25 years. Global sea levels could rise by more than 20 feet, devastating coastal areas worldwide. The Arctic Ocean could be ice free by 2050. And more than a million species could be driven to extinction by 2050. Should the worst scenario occur, Nevada and UNLV will probably still be here. Both the east and west coasts may be under water, but our university will survive.

Windmills will line Maryland Parkway and Tropicana Avenue. The sun will be our most precious resource. Solar panels will top every building, new and old, heating our classrooms, running our computers and providing power to students working in science labs. The most popular majors at UNLV will be those focused on saving the planet and the species living here. A newly created major, energy sciences, will be one of the most important the university has ever offered. Students will learn how to save this planet in peril. We will help create cars that run on water instead of gas or electricity and devise new ways that the average citizen can conserve energy.

Animal survival will also be vital to our Earth’s future. We will work to save dying species, including the human animal. Polar bears and other arctic creatures may be gone, but we can still save the eagle and the elephant.
Scholarship Honors Former UNLV Chaplain

Father Wally Nowak, the late professor of chemistry and university chaplain at UNLV, was a well known figure on campus in the 1970s. The Walter Nowak Prize in Chemistry, an annual scholarship for a deserving chemistry student, will be supported by a recently created endowed fund.

Robert Smith, former dean of the College of Sciences, recalled a course he co-taught with Nowak in the 1970s. “From my viewpoint, his theological background left him better prepared than most academic scientists to approach non-science majors,” he said. “Wally’s humor and enthusiasm enlivened that course, helping to engage students who were doubly reluctant due to their fear of both science and unfamiliar teaching strategies.”

Nowak was a friend and mentor to countless UNLV students; as a scientist and a cleric, he showed unusual flexibility and willingness to continue experimenting with new ways to reach students.

Anthony Wirtz, a friend of Father Nowak and a contributor to the Nowak Prize Endowment, said, “Father Nowak loved three things deeply, the University of Notre Dame, where he went to school, UNLV, where he helped so many students, and chemistry, a field he loved to teach. He would be pleased that this scholarship will help students at an institution that gave him so much happiness.”

College of Sciences Alumna Pursues Graduate Research

Nicole Schmitt graduated from UNLV in 2001 with a bachelor’s degree in biological sciences. She values her UNLV education and the preparation she received for medical school. Schmitt takes a moment to share with the College of Sciences her experiences, goals, and future plans.

How did you develop an interest in science?

I was always fascinated by science and the inner workings of the human body. I think that growing up with parents who were artists led me to be interested in work that is more objective; I was pleasantly surprised to find out that there are also elements of art and creativity in science and medicine.

Do you recall any memorable faculty members, fellow students, or activities from your time at UNLV?

I received excellent teaching and mentoring from many of the faculty members, including Carl Reiber, Bob Winokur, Stephen DeBelle, and many others. I loved studying in the newer, state-of-the-art library or sprawled on the lawn near the science buildings.

How did UNLV prepare you for graduate education?

I left UNLV with a wealth of knowledge in the basic life and physical sciences as well as good basic research techniques. I felt well prepared for medical school and graduated in the top of my class. I also learned to approach faculty members about research pursuits and was able to get involved with research shortly after starting medical school.
Life Sciences Professor to Study Arid Ecosystems

Associate professor George Rhee has received a three-year $86,959 National Science Foundation grant for an observational and theoretical study of the dynamics and structures of galaxies. This is a collaborative project with Anatoly Klypin of New Mexico State University and will include an extensive observational and theoretical study of the dynamics and structure of galaxies and will confront these with cosmological models. This detailed analysis of the central few kiloparsecs of galaxies is the only way to settle the small-scale disagreement between observations and theoretical predictions in the standard cosmological model.

What are your proudest accomplishments?

Balancing a happy marriage with a rigorous medical school education followed by a competitive surgical residency program. It is possible! I received a Hughes Scholarship for the four years I attended UNLV, covering my full tuition and helping me graduate magna cum laude. I also started the local chapter of Beta Beta Beta Biological Honor Society.

What are you doing today?

Currently my graduate research is focused on prevention strategies for hearing loss. I am doing my medical residency in otolaryngology at the University of Washington. Otolaryngology is a medical specialty that deals primarily with diseases and disorders affecting the ear, nose, and throat including hearing loss, balance disorders, and tumors. I work with Dr. Edwin Rubel at the Virginia Merrill Bloedel Hearing Research Center. I use the inner ears of both the zebrafish and the mouse to study cell signaling pathways involved in the death of mechanosensory hair cells of the inner ear, which leads to permanent hearing loss and balance disorders. At this moment I am actually in France working with a collaborating lab on a hearing loss study that uses guinea pigs.

What are your future plans?

I plan to pursue a career in academic otolaryngology, including clinical head and neck surgery duties as well as teaching and basic science research in prevention strategies for hearing loss. If I hadn’t had such a positive initial experience with research at UNLV, I probably would never have pursued research activities in medical school or beyond. My education at UNLV prepared me well for the achievement of all of my goals, and I look back on it with fond memories.

Galaxy Study to Provide New Insights

Associate professor George Rhee will study the dynamics and structures of galaxies with a grant from the National Science Foundation.

Globally, the scientific community is highly interested in determining if increasing atmospheric CO2 will stimulate ecosystems to store more carbon and therefore counteract the negative effects of elevated CO2 on climate change. This experiment will provide the first global estimate of this question for arid ecosystems.

Associate professor Stan Smith in the School of Life Sciences was awarded $488,774 from the Department of Energy, Program for Ecosystem Research for a two-year project, “Biotic Processes Regulating the Carbon Balance of Desert Ecosystems.”

The purpose of the long-term experiment has been to examine how an intact Mojave Desert ecosystem will respond to an elevated atmospheric CO2 concentration expected to occur by the middle of this century. Globally, the scientific community is highly interested in determining if increasing atmospheric CO2 will stimulate ecosystems to store more carbon and therefore counteract the negative effects of elevated CO2 on climate change. This experiment will provide the first global estimate of this question for arid ecosystems.

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Assistant professor of geosciences Matt Lachniet has received two grants from the National Science Foundation to pursue further research in climate change in the Arctic and in rainfall variability.

Matt Lachniet, assistant professor of geosciences, has received two grants. He was awarded a three-year $182,670 grant from the National Science Foundation, in collaboration with Dan Lawson of the Cold Regions Research and Engineering Laboratory in Hanover, N.H., to document the sensitivity of arctic climate to global climate changes. The Arctic is an important area for research because climate changes there are much larger than at lower latitudes, and it is a region expected to warm drastically as global temperatures rise. This project will measure detailed stable isotopic analyses of ice wedges and ground ice—forms of ice associated with permafrost areas that contain a direct imprint of winter temperatures—to provide a high resolution proxy data source for unglaciated regions of the Arctic. This will fill an important data gap in our understanding of ice-ocean-atmosphere interactions in global climate.

L a c h n i e t  a l s o received a one-year $95,064 grant to use speleothems—cave deposits such as stalagmites—from Central America and Southern Mexico. Speleothems in these regions contain a chemical fingerprint of past rainfall variability, much like tree rings, which can be used to understand past water availability in the southwest. This project will allow the development of a 100,000 year-long record of tropical rainfall, which will permit investigation of how and why rainfall varies on millennial time scales and how this rainfall variability is linked to the waxing and waning of the large high latitude ice sheets during the last Ice Age. Both of these projects will use the newly-established NSF-funded Las Vegas Isotope Science Lab in the department of geoscience for analyses.

Hongtao Yang, assistant professor of mathematics, has received a three-year $115,409 National Science Foundation grant to develop, analyze, and implement numerical methods for the valuation of interest rate models. This project will produce reliable tools for economists and practitioners in the financial industry to understand and evaluate the studied financial derivatives and make better financial decisions about the risk management of their portfolios.

Assistant professor of geoscience Brenda Buck will lead a collaboration of scientists from the Department of the Interior, Bureau of Land Management, and UNLV to conduct research needed to assess the effects of dust emissions from public lands on air quality in areas of Clark County, Nevada. Buck and her colleagues will provide technical assistance to land management agencies under the Great Basin Cooperative Ecosystem Studies Unit. This project will enable UNLV to provide an improved scientific understanding of factors contributing to dust generation and transport from public lands in Clark County. This will improve the quality, efficiency, and cost-effectiveness of the Bureau of Land Management’s efforts to mitigate dust emissions and comply with local, state, and federal air quality regulations.
The College of Sciences is saddened to announce the passing of a colleague, professor of chemistry Stephen W. Carper, Ph.D., on Nov. 27, 2007. Professor Carper was born on March 25, 1958, in Boise, Idaho, and received degrees from Eastern Oregon State College (B.S. Biology and B.S. Chemistry, 1981) and Utah State University (Ph.D., 1986). He also pursued post doctoral studies in the molecular biology, radiation oncology department at the University of Arizona from 1986-88. Professor Carper was the founding director of the UNLV Cancer Institute, now the UNLV Center for Molecular Medicine and Radiation Biology. He served the College of Sciences as a faculty senator and was elected to serve a one-year term as chair of the Faculty Senate. He was also instrumental in the development and growth of the graduate biochemistry program.

Stephen Carper authored numerous scientific articles, book chapters, and publications. He developed a variety of patents, received external grant funds, and advised many undergraduate and graduate students. During his distinguished career at UNLV, Professor Carper received numerous awards, including the 1997 Distinguished Teaching Award from the College of Sciences (UNLV); the 1997 Outstanding Faculty Award for the College of Sciences from the Consolidated Students of the University of Nevada; the 1997 Outstanding Departmental Teacher, UNLV Alumni Association; the UCCSN Board of Regents Outstanding Faculty Award for 1998-99; the 1999 Outstanding Departmental Teacher, UNLV Alumni Association; the 2000 Professor of the Year, Association of Pre-Health Professionals; and the 2000 Outstanding Faculty Advisor, Minority Science Student Program.
Our campus will look different. New plants will sprout in the desert because of increased moisture created by a closer ocean. Browns and grays will be replaced by green. Trees will be taller. Lush gardens will thrive. But this newfound fecundity will be a sad one, created by the death of much of our nation. But we do not have to wait until the dire predictions come true to make changes. Al Gore, in the film “An Inconvenient Truth” said, “What changed in the U.S. with Hurricane Katrina was a feeling that we have entered a period of consequences.” Today we see forest fires, hurricanes, and tsunamis. These are consequences that are making Americans and many around the world question how we live. We are rethinking our lifestyles. We are recycling, building compost heaps, buying energy efficient cars, turning our heat down, and conserving water.

It will take more. We must change our laws to require companies and businesses to reduce or eliminate their carbon footprint. It will be illegal to emit greenhouse gases. These laws will be enforced. The number of cars must be reduced. We all must work to find alternative ways to get around.

It is not too late. We can save our world, our nation, and our university. We can save California and by doing so save our beautiful desert. We can continue to study literature, history, art, and music. We can leave a clean world to our children and grandchildren.

The world will end someday, in a billion years according to scientists. But that is a long way off. Our moral responsibility is to heal our sick world now and keep our university a diverse mecca of education.

Brenda Buck is the first female scientist to be awarded the Marion L. and Chrystie M. Jackson Soil Science Award.

Geoscience associate professor Brenda J. Buck received the 2007 Marion L. and Chrystie M. Jackson Soil Science Award from the Soil Science Society of America in November, becoming the first female scientist to be honored with the award.

The award recognizes mid-career soil scientists who have made outstanding contributions in the areas of soil chemistry and mineralogy. The award is administered by SSSA and supported through a contribution by Dr. and Mrs. Marion L. Jackson to the Agronomic Science Foundation.

“I’m extremely honored to receive this prestigious award, especially because I’m the first woman to receive it and because it’s rarely given to pedologists. This award is also a reflection of the outstanding program we have at UNLV,” said Buck.

Buck is one of the world’s foremost experts in salt mineralogy and processes in arid soils. She has made outstanding advances in the fields of soil-geomorphology, landscape evolution, micromorphology, tectonics, paleoclimate, geoarchaeology, and heavy metal and radionuclide contamination. She is the founding director for the Environmental Soil Analytical Laboratory at UNLV, where she has developed the only soil science degree program within the state of Nevada.
This roll of honor recognizes the contributions to the College of Sciences from March 1, 2007 to Jan. 31, 2008. The college wishes to thank the following individuals, corporations, and foundations for their generous support. Every gift to UNLV is valued. It is important to us to recognize all donors correctly. Please notify the UNLV Foundation at (702) 895-3641 of any discrepancies.

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New Program Develops Science Teachers’ Skills

Project PASS (Proficiency and Success in Science) is a collaborative professional development program for K-12 teachers funded by the Nevada Mathematics and Science Partnership Program. This three-year, $750,000 project (2005-07) brings together the Curriculum and Professional Development Division of the Clark County School District, the UNLV Center for Mathematics and Science Education, and the Southern Nevada Regional Professional Development District. Principal investigators for Project PASS are: Loretta D. Asay, Clark County School District; Kent J. Crippen, UNLV College of Education; and John Farley, UNLV College of Sciences.

“I am so proud of our UNLV and CCSD colleagues for working together to improve science education in our region. A science literate citizenry is essential to improving the quality of life for everyone in southern Nevada,” said UNLV’s College of Sciences Dean Ron Yasbin.

Project PASS supports K-12 curriculum development focused on integrated scientific inquiry. Annually, the program offers a two-week summer institute for 50 high school science teachers. Project PASS creates an extended learning community for teachers, giving them the opportunity to earn graduate school credits in science and education. To date more than 246 teachers have participated in the program.

“My students actually go home and point out science to their families. I have parents who come in for conferences, smile, and tell me how my science lesson ended up being a family discussion. How fantastic! I have kids actually thinking about science outside the classroom,” said science department coordinator Rebecca Reichenbach of Western High School.

Cyndy Kern, a science teacher at Green Valley High School noted that PASS has the potential of changing how you teach, how you reflect, and who you are, “Go into it with an open mind and a willingness to make changes and amazing things can happen. This is a powerful professional development tool that has changed the face of science education in CCSD.”