I’m excited to introduce Hands-on Learning: Pacific Fund Stories.

These stories, written by Pacific students, document how money raised through the Pacific Fund has broadened and enriched the lives of University of the Pacific’s students and faculty. More than that, these stories exemplify the creativity, focus, determination, compassion and drive to help others that embody the Pacific experience.

The Pacific Fund provides scholarships to deserving students to attend Pacific. In addition, the Fund provides grants for basic research and experiential learning activities that enhance learning and improve the quality of life locally and around the world. Grants for faculty help them stay at the forefront of their fields and to pursue projects that engage students in research, thus forging bonds and encouraging expanded thinking. The Pacific Fund supplements the whole student experience that makes this University a distinctive institution of higher education.

I encourage you to reflect upon the rewards and impact these donations provide. These stories demonstrate the benefits, both to the recipients and to those who have been touched by research and activities that would not have been possible without the Pacific Fund.

Thanks to the generous support of alumni, parents and friends, Pacific provides experiential learning opportunities that ignite the spark of curiosity and enrich our society.

Bob Berryman ’83
Chair, Pacific Fund Advisory Board
Hands-on Learning: Pacific Fund Stories

Experiential Learning

Mallets Make the Drum: The Sound of Timpani
Fashioning New Experiences
Working Humanely: An Experience with Fair Trade
SW/Et Sound of Success
Who Owns the Music?
DREAMing of Educational Opportunity
Getting Their Hands Dirty: Four Engineers and a Robot
Spring Break in the Philippines

Student Research

Hookah’s Hidden Hazards
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The Singh Score
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The Benefits of Expressing Yourself

Innovation

Sustaining Life Via Alternative Spring Break
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Performing Gender
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How to Read a Fish
A Vision for Diversity

Faculty Scholarship and Research

The Big Valley
Teaching Music through the Centuries
On the Cutting Edge of Physical Chemistry
Advancing African-American Theatre
Food Sovereignty and the Politics of Agriculture
Assessing the Culture Gap
The Fight to Survive

Meet the Authors
Experiential learning opportunities such as study abroad, internships and co-ops and community service help students broaden their perspectives, apply their theoretical learning to real-world problems, gain practical experience in the workplace and become citizen leaders.
Mallets Make the Drum: The Sound of Timpani

By Kent Linthicum ’09

Deep, sonorous, commanding — these words define the sound of timpani, also called kettle drums, that usually sit at the back of the orchestra. You hear it at the beginning of Aaron Copland’s “Fanfare for the Common Man,” and in the “Sunrise” from Strauss’s “Also Sprach Zarathustra.” It adds depth and texture to the music.

Timpani are struck by mallets held by a timpanist. The head of the drums, the big round “skin” on top of the copper base, is what makes the sound. Mallets are an integral part of the performance of the instrument, as Conservatory of Music student Aaron Martin ’10 discovered.

A devoted percussionist, Martin plays in all the ensembles he can fit into his busy schedule: Pacific’s symphony orchestra, the Symphonic Wind Ensemble, the Jazz Ensemble and the Tiger Pep Band. He’s also a member of the music fraternity Mu Phi Epsilon. He describes himself as a drum-set percussionist whose favorite genre is jazz.

Timpani are rarely used in jazz. And yet, Martin wanted to learn all he could about it. He soon realized that a critical element in playing the instrument involves construction and use of the mallets. He wanted to understand how they were made and to be able to make his own. He turned to the Pacific Fund for help.

Martin’s grant gave him an opportunity to contact Stan Lunetta, the principal timpanist for the Sacramento Philharmonic Orchestra. Lunetta studied with composer John Cage and has been involved with the leading edge of American music. He showed Martin how to make mallets.

It begins with a piece of wood — Martin used bamboo — which is cut to size and shaped in a drill press. The shaft’s core is bored out and an end segment is installed on it: a plug, dome or piece of poplar dowel. It can also be made of plastic, felt, wood, leather or rubber — all make different sounds when striking the percussion instrument. Martin then oils the wood, which strengthens and smoothes it, to make it firm and reliable.

He learned to make the felt head that is sewn around the core, and about the four ways of wrapping the felt. He can now repair used timpani mallets as well as make new ones.

His new knowledge has taken Martin to a greater understanding of how the mallets work to create the sounds of timpani, which he can articulate with more precision.

“I consider this an incredibly valuable experience,” he said. “I will continue to make full benefit of it throughout my life.”

Martin is intrigued with the possibilities in mallet-making, and wants to teach others about his new-found skill. He also hopes to help student timpanists recover damaged or worn mallets through rehabilitation. He has already helped cash-strapped local schools replace damaged or worn mallets.
Fashioning New Experiences

By Kent Linthicum ’09

Pacific art students Madalyn Friedrich ’09 and Robin Lee ’10 were interested in the concept of form and function: the way in which things such as clothes, buildings, bridges and sculpture interact with their surroundings. They began by looking at how the Jeannette Powell Art Center and the Richard and Marjorie Reynolds Art Gallery fit—and are hidden—on Pacific’s campus. How does the art of the space fit its function? Can you see it?

“We wanted to show the connection between fashion and the urban landscape,” Friedrich said. They wanted to exhibit leading-edge art, the avant garde, art that pushed the envelope, and to create an installation that involved the viewer. They also wanted others to know about and engage with the Reynolds Gallery.

Professor Bett Schumacher helped them formulate a plan for what became two very different, and yet interconnected, artistic endeavors. “Caps and Couture: Fashion and the Urban Landscape” included a fashion show that combined art and utility with an urban art exhibit in the Reynolds Art Gallery.

Their Pacific Fund grant provided for objects as mundane as a runway for the fashion show and as important as work to display from out-of-state artists. Funds covered the cost of design materials and the installation of the exhibit.

Friedrich and Lee used three-dimensional objects like mannequins to connect with canvasses that incorporated many versions of art in the urban landscape, including graffiti, environmental and found art. The gallery show also featured designs from students and other artists that were made from recycled products, including a jacket made from newspapers and a corset and skirt made from recycled jackets.

“We put together a show that conveyed a message and asked the Stockton and Pacific communities to get involved with the Reynolds Gallery,” Friedrich said. “I think more people discovered that Pacific has an art gallery—and a great one at that! It was great to see the models, designers, sponsors and faculty members as excited about the show as Robin and I were.”

Friedrich and Lee were the first two Pacific students to organize a Reynolds Gallery show from the ground up. The fashion show was also a hit with the community, drawing possibly the largest audience yet to the Reynolds Gallery. Friedrich said, “It feels special to leave Pacific knowing I was part of something unique and that will inspire other art majors to reach above and beyond.”

Madalyn Friedrich ’09 and Robin Lee ’10 were the first two Pacific students to organize a Reynolds Gallery show from the ground up.
Working Humanely: An Experience with Fair Trade

By Tarn Painter-MacArthur ’09

Humane working conditions, enhanced environmental protection and base prices are all part of the concept of Fair Trade, which Haley Turnbow ’08 learned on a summer internship with Oakland nonprofit TransFair USA. Turnbow majored in International Relations and Chinese with a particular interest in development studies. Her internship was funded by a grant from the Pacific Fund. TransFair USA works as a third-party certifier for Fair Trade products sold in the U.S. and is also an intermediary for U.S. companies offering Fair Trade products for sale and their import sources. Fair Trade takes a market-based approach to providing sustainable prices for export goods from developing countries.

A non-profit organization, TransFair receives additional funds through applying for grants and grant competitions. During her internship, Turnbow worked as a researcher and writer on a grant competition sponsored by Ashoka. Turnbow helped to analyze the correlations between child slavery and the West African cocoa industry, demonstrating how Fair Trade reduces the enslavement of children by offering better economic solutions. The TransFair entry was called “Combating Child Labor Through Fair Trade in West Africa.”

“By propping up the farmers to a sustainable income level through the implementation of Fair Trade prices, they no longer are forced to employ children, which in turn allows these children to pursue an education provided through the building of schools and funding from Fair Trade farming co-ops,” she said. Her work helped TransFair to place seventh in the competition, which saw 236 entries from 48 countries. Her work was read and judged by high-ranking members of organizations such as the United Nations, Vital Voices Global Partnership and Humanity United.

Turnbow was especially pleased with the contacts she made during her internship. “My desk was directly across from that of Paul Rice, the president, CEO and founder of TransFair USA,” she said. “He has lived and worked throughout the world. It was intimidating, to say the least, and also inspiring.” She worked with other interns, too, many of them from other top universities in the country. Over the summer she expanded her understanding of Fair Trade by traveling to Central America to visit some of the farming co-ops she learned about during her internship.◆
SWEet
Sound of Success

By Alia Knight ‘12

Competing in a prestigious national competition is a highlight for many engineering students at University of the Pacific. Winning is the icing on the cake — especially when that success has the potential to change lives.

With the help of a Pacific Fund Grant, seven members of Pacific’s Society of Women Engineers (SWE) traveled to Baltimore in November 2008 for the Boeing Team Tech Competition, sponsored by Boeing and the Society of Women Engineers. Founded in 1950, SWE has grown to over 17,000 members and works diligently to encourage women to pursue engineering careers.

Pacific’s SWE section also supports the organization’s mission through an annual “Expanding Your Horizons” conference. The event brings in middle and high school students from the community to the Stockton campus where they participate in interactive activities that showcase career opportunities for women in math, science, computer science and engineering.

The three-day Team Tech Competition brings together several thousand women engineers, including college students, professors, experienced professionals, and exhibitors from businesses such as The Aerospace Corporation, Microsoft and U.S. Steel. Pacific’s team project, a handheld communication device, earned top honors, including a first place prize of $5,000. “It’s a tremendous experience for the students,” said Professor Louise Stark, the team’s faculty advisor.

The 11-member team of Megan Kalend ’09, Tess Winlock ’08, Thomas Smith ’08, See Yang ’08, Gwendolyn Upson ’09, Jennifer Russell ’09, Olga Sirovskaya ’09, Tiffany Mateo ’09, Immanuel Eckardt ’09, Joyce Opiniano ’09 and Maha Al-Awadhi ’10 worked on the project throughout the year, in addition to their class work and extra-curricular activities. “It takes a lot of dedication,” Stark said.

Pacific’s SWE team collaborated with United Cerebral Palsy (UCP) to develop the device. Cerebral Palsy, a neurological disorder, makes speech very difficult. The cost of a commercial touch-screen communication device ranges from $7,000 to $10,000 and is rarely covered by insurance. By retrofitting a used laptop, Stark’s students created a comparable device at a cost under $400.

They presented the final product free to a UCP client, who is now able to communicate clearly by the push of a button. “It shows that engineers don’t just sit at a desk and crunch numbers,” team member Megan Kalend ’09 told The Record newspaper. “It’s about solving problems and helping people.”

SWE team members (l. to r.) Joyce Opiniano ’09, Gwendolyn Upson ’09, Tiffany Mateo ’09, Jennifer Russell ’09, Olga Sirovskaya ’09, Megan Kalend ’09. Not pictured: Immanuel Eckardt ’09, Thomas Smith ’08, See Yang ’08, and Maha Al-Awadhi ’10.
Who Owns the Music?

By Alia Knight ’12

Bryce McLaughlin ’11, a pianist raised in Sacramento, has long had a passion for music. While still in high school, he performed in several semi-professional jazz bands at jazz festivals throughout California. He met many professional musicians who offered the talented young man stories, advice and warnings; stories of “great opportunities lost” simply because artists didn’t realize their legal rights. When he came to Pacific’s Conservatory of Music, McLaughlin heard similar stories and decided to be part of the solution.

McLaughlin organized a workshop, a practical and feasible alternative to a full-blown academic course. He had the hope that offering information in a non-traditional way could more readily get the concepts across.

Professors Thomas Brierton and Keith Hatschek offered support and guidance, along with entertainment attorney and artistic manager Michael Aczon. Aczon has taught music law and served as a member of the advisory committee for the National Academy of Recording Arts and Sciences entertainment law initiative.

A Pacific Fund grant enabled McLaughlin to implement his workshop idea, to produce the materials and to pay Aczon to speak and lend his considerable knowledge and expertise. Critical support also came from the Pacific Library, which donated the workshop venue and provided a reception for the 80 attendees.

The interactive workshop involved role-playing for the participants, who were each given a booklet that presented four simulations about patent and legal issues artists might encounter during their careers. A musician, for instance, discovers his piece has been stolen. Workshop students suggested how the theft might have been prevented and possible courses of action the musician could take to secure the rights.

Another scenario focused on work-for-hire arrangements, presenting a situation where a songwriter’s music is not only stolen but then altered against her design. “This is important to include,” said McLaughlin. “Many artists don’t realize they no longer have any claim to work created under such an agreement.”

Additional simulations were about performance contracts and session releases. The contracts articulate an agreement between musicians and the venue regarding pay, concert hall details, equipment and specific requests from either the artists or venue. Session releases are written agreements which specify rights and ownership of any material produced during a recording session.

Workshop participants included faculty, students, alumni and community members. “The workshop exceeded our expectations,” McLaughlin said. He plans to attend law school so he can become an entertainment attorney. He wants to “protect, advocate and better artists’ rights.”

◆
DREAMing of Educational Opportunity

By Faith Merino ’08

One in 10 young Latino adults holds a college degree, a statistic that has held firm since 1975. Maria Meza ’11, a business administration and Spanish major, wants to improve that number.

A member of MEChA, or Movimiento Estudiantil Chicano de Aztlan, since high school, Meza is treasurer and secretary of the Pacific chapter. For Meza and the Pacific chapter of MEChA, the focus is on education and fun. The group sponsors a fall celebration of Día de los Muertos (Day of the Dead), a Mexican cultural holiday. It also organizes a car show on Cinco de Mayo, May 5th, the celebration of Mexican Independence Day. “We want to encourage young Chicanos to think of college as their future,” she said.

Meza received a grant from the Pacific Fund in spring 2009 to attend a MEChA conference “Reclaiming Displaced Herstory” hosted by the University of Oregon in Eugene, which focused on the struggles and successes of Latinas.

While at the conference, Meza participated in a rally in support of the DREAM Act, the Development, Relief and Education of Alien Minors Act, which provides permanent residency to children of undocumented immigrants. These minors arrived in this country before they were 16, graduated from a U.S. high school and have lived in the United States for five consecutive years. The Act provides for permanent residency for these students with the condition that they must attend college and earn at minimum a two-year college degree, or serve in the military for two years.

“The DREAM Act is significant in its approach to the unique problems facing undocumented Latino youth,” Meza said. “While the child of undocumented immigrants may receive an American education until graduation from high school, he or she may not be able to attend college due to the lack of financial aid. Only documented immigrants can receive it. This rally was organized by students to show people in Oregon and our Congressional leaders how important the DREAM Act is to many Latino students,” Meza said.

“I personally love helping others, and this conference gave me an opportunity to reach out more to my community,” she continued. She plans to organize monthly meetings that will address current political decisions that affect Latino students and their community, including the recent cutbacks in California that are affecting K–12 education. “Our main focus is to grow and learn from one another while making a difference in the lives of other Latinos,” says Meza.
Getting Their Hands Dirty: Four Engineers and a Robot

By Sara Mirels ’09

Mechanical engineers often had dirty hands when they were children. They loved to build things, puzzle how things are made and work on messy projects. This love for tinkering and solving problems is what led Gabriel Corona, Jared Engelbrecht, Brandon Coonce and Jonathan Thomas, all members of the Class of ’09, to the field of engineering.

These mechanical engineering seniors applied their ingenuity and education to the challenge of the 2009 regional competition held in San Jose, sponsored by the American Society of Mechanical Engineers. The problem was to design a radio-controlled vehicle that NASA could use on its next mission to Mars to retrieve small rock samples for further study. The vehicle could be controlled from a spacecraft on a manned mission or from Earth on an unmanned mission.

Professor Kyle Watson mentored the team through the process of designing and building the Mars Rock Retrieval Vehicle, or MRRV. They designed it first as a three-dimensional computer model. They built it with the help of a grant from the Pacific Fund, which was used to purchase materials and also covered conference fees, transportation and lodging to attend the competition.

For the first team from University of the Pacific to compete in a mechanical engineering competition since 2002, attending the two-day conference was a momentous experience. “Competition builds teamwork and pride in your work. It allows you to see the faults and potential mistakes between planning, building and putting your machine into action,” Engelbrecht said.

Entries competed on a timed obstacle course. Vehicles were to retrieve rocks and bring them back across the course to the start line. Coonce drove the MRRV via remote control. The team placed third in the competition against six other schools. The two-day conference offered opportunities to meet other teams and to study the competition. “I wish I had taken part in something like this my first or second year at Pacific,” Corona said. “I hope professors will encourage younger classes to participate more actively in competitions.”

The competition provided a unique learning experience that had a profound impact on their experience at Pacific, and the MRRV took first place in Pacific’s Senior Project Day mechanical engineering design competition.
A thirst for cross-cultural knowledge led Kassi Talbot ’11 International Relations to an opportunity to spend spring break 2009 in the Philippines, skipping the usual lazy California beach holiday and opting for knowledge of other parts of the world.

Even though she didn’t have any extra money — she pays her own way at Pacific — her interest in diverse cultures led to a real longing to see the Philippines on a trip sponsored through Morris Chapel. The group included 15 students and four professors and administrators, including Chaplain Donna McNiel and visiting Fulbright Scholar Don Amorsolo, who is from the Philippines.

“The most interesting part of the trip for me was being able to visit Baguio City because it had a variety of cultural features, such as the local market and the artist colonies like the Tam-Awan Village where I was able to get an up-close-and-personal perspective on their cultural history,” Talbot said.

Talbot brought home much more than souvenirs. “I learned about many cultural features of the Philippines, such as the traditional dishes, religious customs and social status as well as how they view Americans,” she said. “The trip definitely expanded my knowledge of the dynamics of other cultures… and what effects our country has on the Philippines.”

McNiel agreed. “Our assumptions were challenged in ways that I hope will make us more open to relationships with others — whether across the world or across campus,” she said. “I think this is certainly the case for Kassi.”

Talbot was able to finance her trip through a grant from the Pacific Fund. “We went through some meetings together as a group so we could get to know each other before we left Stockton,” Talbot said. “And we had a native from the Philippines — Don Amorsolo — there to help us wrap our minds around what would happen when we arrived.

“This is a good way to expose Pacific students to the outside world,” Talbot continued. “Morris Chapel sponsors a trip every two years and the trips are never to the same place. This allows the Pacific community to gain different experiences at different times.” Talbot says she would encourage any student to participate in trips of this type. “I know it will help anyone discover new things about themselves and expand their knowledge of other parts of the world.”

By Kate Casey ’10

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Through undergraduate and graduate research, students apply their theoretical learning to real-world problems, which enhances learning and prepares them for further study and their future careers.
Hookah’s Hidden Hazards

By Kyrsten Keith ’09

Smoking and high blood pressure are responsible for the largest number of deaths in the United States, according to a 2009 study published in the Public Library of Science. Risks associated with cigarette smoking and the harmful effects of tobacco have been highly publicized. It is no secret that cigarette smoking is dangerous. However, the potential health hazards of smoking with a hookah are largely unknown or misunderstood. The hookah is an oriental tobacco pipe with a long flexible tube connected to a container filled with water. Hookah smoking has been growing in popularity in the U.S.

Three Pacific dental hygiene students — Danielle Green ’09, Hani Mohsenzadeh ’09 and Kelley Sanford ’09 — decided to research college students’ knowledge of hookah smoking and its impact on health. They gave one hundred college students a twelve-question, multiple-choice survey over Facebook.

The results were surprising. While only 46 percent of surveyed students had smoked cigarettes, nearly 76 percent had smoked hookah at least once. Over 81 percent believed that cigarette smoking is more hazardous than smoking hookah, and 75 percent felt that carcinogens in cigarette smoke are not in hookah smoke. In fact, hookah smoke contains tar, heavy metals and large amounts of carbon monoxide. In one hour of hookah smoking, the smoker will inhale the same amount of carbon monoxide as in a pack of cigarettes.

Many students believe that the water sieves out any of the harmful aspects of tobacco in hookah smoking — particularly carcinogens and nicotine. Though water filtration does eliminate a small amount of the nicotine in hookah smoke, scientists believe that those who smoke hookah will smoke long enough to take in the same amount of nicotine as in cigarettes, counteracting the benefits of filtration.

Following the initial study, the group created an educational video and invited survey participants to the presentation.

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Though only a small number of the students originally surveyed viewed the video, it did improve awareness in those who did. The results demonstrate the importance of education, especially for those more likely to smoke hookah.

With the help of Pacific Fund grants, Green, Mohsenzadeh and Sanford were able to present their research at the California American Dental Hygienist Association Table Clinic Session in Anaheim, Calif. They also distributed informational brochures to professors, students and dental professionals.

The project “was very relevant to the field of dentistry, and to the general public,” said Sanford.

“Without assistance from the Pacific Fund, many dental professionals, teachers and students may have missed out on this valuable information.”

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Dental hygiene students Danielle Green ’09, Hani Mohsenzadeh ’09, and Kelley Sanford ’09 were able to provide the important results of their research to other educators, students and professionals.

Though only a small number of the students originally surveyed viewed the video, it did improve awareness in those who did. The results demonstrate the importance of education, especially for those more likely to smoke hookah.

With the help of Pacific Fund grants, Green, Mohsenzadeh and Sanford were able to present their research at the California American Dental Hygienist Association Table Clinic Session in Anaheim, Calif. They also distributed informational brochures to professors, students and dental professionals.

The project “was very relevant to the field of dentistry, and to the general public,” said Sanford.

“Without assistance from the Pacific Fund, many dental professionals, teachers and students may have missed out on this valuable information.”

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Globalization and Communication: Understanding Other-Cultural Experiences

By Faith Merino ’08

Study abroad experiences are life-changing. Students discover the world is not so far away as they thought and find they are active participants in a global community. Pacific students are encouraged to reframe perspectives to include other nations and people, which helps their development as responsible, socially aware global citizens. It also gives them a competitive advantage.

Unfortunately, not all students have the means or opportunity to travel abroad. That is why it is more important than ever to open dialogues regarding culture and diversity. Student affairs professionals are challenged to create learning opportunities that help students grasp the real meaning of diversity and multiculturalism.

This subject is of particular importance to Analucia Lopezrevoredo ’09, who is studying for her master’s degree in Educational Administration and Leadership with a Specialization in Student Affairs. Originally from Lima, Peru, Lopezrevoredo understands the need for communication regarding culture and diversity. This is why she decided to research cross-cultural communication skills and the role of storytelling in initiating dialogue.

Lopezrevoredo began her research with a two-week cultural study tour in Ghana, West Africa in 2008. The tour was sponsored by the American College Personnel Association (ACPA) to help student affairs professionals learn more about student services and higher education systems in different cultures. At the University of Ghana, she heard lectures by leading Ghanaian scholars on the African slave trade, the diaspora, politics, women’s issues, chiefancy, and religion and culture in Ghana. The group toured the university and other local sites, such as Nkrumah Memorial Park and the Center for National Culture, and visited local villages. They took classes in Kumasi and toured the Kwame Nkrumah University of Science and Technology.

“The experience was life-changing,” said Lopezrevoredo. “I was able to visit six regions of the country and met amazing people. It really helped me better understand West African culture.”

Lopezrevoredo received a Pacific Fund grant to attend the annual ACPA convention to present her paper, “Ghana Cultural Study Tour: Strengthening Cross-Cultural Communication Skills.” Lopezrevoredo learned the importance of storytelling as a form of experiential learning. “I have witnessed storytelling compensate for experiential learning through meaningful and transparent dialogue. In presenting at the ACPA convention, for example, many student affairs professionals were able to honestly illustrate experiences abroad that changed their lives,” she explained. “Organized discussion spurred critical thinking as participants asked questions and actively listened to stories.”

As pivotal figures in the multicultural development of university students, student affairs professionals like Analucia will pave the way toward greater global awareness among students. “This experience has taught me that my future will undoubtedly revolve around increasing awareness and challenging current thought on multiculturalism,” she said. “I see myself one day running either an international or multicultural center.”
The Singh Score

By Alia Knight ’12

For an individual with chronic fatigue syndrome (CFS), or myalgic encephalomyelitis, every day is a struggle against exhaustion and pain. Little seems to help; no medication exists to fight off the fatigue; and physical exercise can leave one debilitated for days. The cause is unclear.

Harnoor Singh ’07 is a master’s candidate in exercise physiology with a passion for clinical research. He sought a Pacific Fund grant to research CFS.

CFS is not very common and often goes undiagnosed. Fatigue is a symptom of many other illnesses, and symptoms vary from patient to patient. Symptoms include muscle and joint pain, cognitive difficulties and chronic exhaustion in an otherwise healthy person.

One of the strategies used in diagnosis is a cardiopulmonary exercise test, or stress test. This test is commonly used to assess cardiac fitness, and it has proven valuable in diagnosing CFS. Results can be complicated to evaluate, however, as there are different variables that affect the outcome. When Singh learned about CFS and the difficulty in pinpointing a diagnosis, he resolved to search for a more effective method for diagnosis.

Singh proposed a scoring system in conjunction with the stress test to describe physiological function and working capacity. Singh used his grant to recruit participants for a variety of tests, including the exercise stress tests. Test results were compared over two days of testing, providing more reliable data. Professors Mark VanNess, Chris Snell, Peg Ciccolella and Staci Stevens provided invaluable assistance.

Singh used a bicycle ergometer for the test to provide a description of health and disability. “Previously, only those with training in cardiology or exercise physiology would be able to completely understand the results,” said Singh. Singh’s system can be interpreted by anyone in the healthcare profession. He hopes his method, called the Singh Score, will simplify interpretation of stress test results to make it easier to diagnose CFS.

The grant also made it possible for Singh to present his findings at the Annual Meeting for the International Association for Chronic Fatigue/Myalgic Encephalomyelitis, where he was named Student Researcher of the Year. Scientists and other researchers were impressed by the ingenuity of the Singh Score and its applied clinical relevance. He also presented at the annual meeting for the American College of Sports Medicine (ACSM) conference in Seattle and is preparing a thesis detailing his research to present at the Southwest ACSM chapter meeting.

Singh says his project has helped him realize that everyone has the ability to affect the lives of others.
Changing a City by Example

By Kyrsten Keith ’09

Nabeel Cajee ’11 grew up in Stockton and was dismayed to see his city decline. By 2009 the former All-America City had high crime rates, was first in the country in home foreclosures and was listed by Forbes magazine as “America’s most miserable city.”

The political science major became involved in Stockton’s “Libraries Change Lives” campaign, which helped him see a larger vision: “to create an enterprising, creative and culturally vibrant community for the people of Stockton and San Joaquin County.”

He discovered that the Colombian city of Medellín, formerly known as “the city of eternal violence” because of its connection to drug cartels, had turned itself in a more positive direction. “Medellín turned blight into beauty,” said the New York Times in 2007.

More money for education, a new mass-transit system, new schools and libraries and more support for social workers and micro-credit organizations have resulted in rising employment rates, more business investment, a rise in per-capita income and new construction.

Cajee decided to travel to Medellín to see the transformation for himself. He wanted to talk to the mayor and city council members, college professors, journalists, police, library administrators and staff. A grant from the Pacific Fund helped pay for his six-week trip, accommodations, acquisition of research materials and the cost of shipping them to Colombia, additional equipment, and development of a website where he posted his findings.

“It is a well-designed, feasible and truly challenging educational experience for an extremely bright, imaginative and self-directed student,” said political science Professor Gene Bigler.

Cajee carried a letter from Stockton Mayor Ann Johnston as an introduction to Medellín Mayor Alonso Salazar and another letter from the administration at the Stockton/San Joaquin Public Library for other introductions in Colombia.

He said he wanted to gain insight into how Medellín’s residents "perceive their own city’s transformation” and interviewed many citizens as part of his project. He also took photographs and kept a journal for publication upon his return to Stockton.

Cajee wants to sponsor an open community event of Stockton/San Joaquin stakeholders, opinion leaders, public officials and community members to encourage agreement for positive change in the area.

Cajee outlined a plan to collaborate with Pacific’s Jacoby Center, the Global Center for Social Entrepreneurship, Benerd School of Education, Stockton 2020 and other community development groups to share information. He hopes his trip will help form a working model for his own city’s revitalization.

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Nabeel Cajee ’11 traveled to Medellín, Colombia to bring back solutions that can transform the community of Stockton.
Making a Vote Count

By Kyrsten Keith ’09

Why do people make so many mistakes when they vote? Political science student Rachel Freeman ’09 was intrigued with that question and began to investigate it for her research methods class. Her class paper turned into a comprehensive project, involving San Joaquin County election officials, poll workers and a search for other sources of information.

“One of the difficulties in the voting process goes beyond getting people to vote,” she said. “They need to know how to vote correctly.” Freeman looked at more than 5,000 spoiled ballots: where there was smudged ink, where two votes were marked in a single category, where party lines were crossed during a primary, or which were marked with an X or checkmark instead of filling in the bubbles.

After she and partner Tonja Swank ’09 wrote their class paper, Freeman decided to explore the issue further, becoming part of a “VoteSmart” project funded by San Joaquin County. Freeman’s professor encouraged her to take her research further toward inspiring true change. To continue her research through the summer, Freeman applied for a Pacific Fund grant.

Freeman received a grant to study how to reduce voter error. She interviewed the San Joaquin County Registrar of Voters Austin Erdman, talked to workers at three polling locations and reviewed current research on voter education, quality of ballots and training of poll workers. Freeman was surprised to find very little current research on the voting process, particularly since the change from punch ballots to those that are electronically scanned.

As a result of her research, Freeman recommended more newspaper articles and other educational communication explaining how to fill out a ballot. “It does no good to vote if you can’t fill out the ballot correctly,” she said. She also discovered technology can be helpful in selecting the best approach in educating voters. A geographical information system can map counties by overlaying census data with precinct data to show where there are certain language preferences, as well as income statistics. “This information could be very useful in determining how to approach voter education in each area,” Freeman said. Several of Freeman’s recommendations to San Joaquin County for improving ballot quality, voter education and poll-worker training have already been implemented.

With the help of her grant, Freeman presented her work at the Western States Communication Association’s annual undergraduate research conference. “It is things like the Pacific Fund that make Pacific unique,” she said.
Exposing Fraudulent Claims

By Kyrsten Keith ’09

“N
o. 1 Toy Company in America,” read the tagline of a 2007 newspaper article about the educational toy company, Leapfrog. Rachel Dilly ’08, an undergraduate Speech-Language Pathology student, read the article for further information about Leapfrog’s success.

It described a growing popularity for educational toys, the company’s specialty. The company’s highly effective promotional strategy suggested these toys provided a balance between fun and education. Leapfrog capitalized on parents’ desires to provide children with entertaining games that teach. Was this true? Dilly wondered.

Dilly questioned if the claims could be substantiated. She logged onto Leapfrog’s website and discovered a number of claims concerning the benefits of the company’s products. Since there were no direct links to research data, she e-mailed the company inquiring about the studies specifically connecting Leapfrog’s products with the improvement of social skills. The company responded that Leapfrog research was for internal use only. When Dilly revisited the site later, she noticed changes in the layout and content, including revisions or removal of the statements that mentioned such research.

Dilly decided to focus her senior project on a study to see if there was a connection between Leapfrog toys and social development. She designed an experiment to test Leapfrog toys in the development of social skills in preschoolers.

She conducted a baseline study to see if children had the abilities to communicate effectively in social settings. She recorded pairs of children interacting in a play environment to test their social skills. She looked at conversation skills, the ability to remain on topic during discussions, the number of times each child interrupted the other, and the topic-appropriateness of their dialogue.

She then studied 18 preschoolers, randomly split into two groups. One group did not play with Leapfrog toys. The parents of the children in the other group were asked to play Leapfrog games with them for 30 minutes a day, five days a week, over a five-week period. After the five weeks, Dilly recorded the children’s play interaction once again.

It took her about a year to analyze the data, and she discovered that there was no statistical difference between the two groups. Leapfrog toys did not improve social skills as the toymaker had claimed.

Dilly was invited to present her study at the American Speech-Language-Hearing Association’s annual convention in Chicago. The Pacific Fund made the trip and presentation possible. “Otherwise I couldn’t have afforded it,” she said. She was able to present her research to more than 150 people over the course of the conference. “It was definitely a learning experience,” said Dilly.

Rachel Dilly’s research challenged a toy manufacturer’s claims.
The Benefits of Expressing Yourself

By Kent Linthicum ’09

Writing effectively, with expression and description, is a skill others can learn, Heather Breen ’09 discovered as an English and psychology major at Pacific. “Expressive writing is an intersection between psychology and English,” she said, about the topic she chose for a research project.

Expressive writing is about investigating or communicating feelings or experiences. For example, the statement “I can remember the flames licking my face as the fire consumed my house,” is expressive. It evokes feeling and emotion rather than just communicating facts.

Expressive writing has been shown to have therapeutic effects, but this isn’t why Breen chose the subject. She was interested in learning whether it could help improve the scores of students taking written tests, such as the writing portion of the SAT.

She designed a test with three parts to be administered over the course of several days. On the first day, her participants took a writing pre-test, similar to a standard SAT writing test, to get a base measurement of their skills. They had to respond to one of these writing prompts: “The best preparation for life or a career is not learning to be competitive, but learning to be cooperative,” or “Technology creates more problems than it solves, and may threaten or damage the quality of our life.”

On the first day of testing, half the students received the first prompt and the other half got the second. Over the next three days, participants were to write expressively through journal entries for 20 to 30 minutes, focusing on traumatic events in their own histories. On the last day, they took another test, similar to the one on the first day, only this time they wrote about the other prompt. Then both tests were graded.

Freshman and sophomore students from Pacific Seminar and psychology classes made up her participants: 17 women and five men. Two English majors helped her grade the tests. Her Pacific Fund grant purchased materials and rewards for the participants and helped pay the graders.

The study showed that the students in the expressive writing group had significant improvement. Those who wrote expressively for three days had higher test scores and also reported better physical health and less stress. Breen presented her findings at the Pacific Undergraduate Research and Creativity Conference.

“Perhaps writing is an intersection between psychology and English,” Breen said. “With this project I had to do large things, from designing the study myself to meeting with professors for revisions on my idea, all the way down to doing the nitty-gritty ‘unglamorous’ stuff like reserving a room for the study, buying supplies and figuring out the best way to recruit and retain participants.”

Heather Breen ’09 proved that creative writing improves academic performance as well as a student’s sense of well-being.
At University of the Pacific we aspire to broaden our culture of innovation, exploration and creativity.
Sustaining Life Via Alternative Spring Break

By Kate Casey ’10

It was spring break turned upside down for eight Pacific students in 2009 who journeyed to the Oaxaca area of southern Mexico to install composting toilets, terrace hillsides, build rainwater collection systems and encourage sustainable organic farming.

And they built a building—with their hands. They broke up chunks of clay, created a paste with water and clay and sculpted a structure that serves as an information center about the history of the area’s indigenous corn.

“A structure like this doesn’t use concrete—it uses materials that are already there,” said Erin Rausch, director for Pacific’s Center for Community Involvement (CCI), which sponsored this alternative spring break. With the help of Jesus Leon Santos of Cedicam, an organization that helps indigenous groups understand the environmental impact of their daily actions, the Pacific group made significant progress on the building over four days.

Rausch and her corps of students began preparing for the trip to Cholula, Puebla City and Oaxaca with language and cultural classes that included historical perspectives of the areas. Rausch made initial contacts, and then the eight students worked with community service and immersion organizations like Community Links International for additional planning.

Traveling to Mexico were Erin Williams ’10 (student leader), Martha Valdez ’10, Jacky Ting ’10, Laura Nulty ’10, Kaitlynn Leier ’12, Ariana Crisafulli ’12, Angela Alfonzo ’11 and international student Akiko Murakami from Japan.

They completed another culture class in Puebla City where they spent a night with host families, which made their experience more personal. Then they drove to Oaxaca to complete their project with Cedicam.

The cost for each student to travel by air to Mexico, carpool to Oaxaca, sleep under shelter, drink clean water and eat was $1,200 per person. Fundraising efforts brought that amount down to $675 per student. “We wouldn’t have made it without the Pacific Fund,” Rausch said of the grant that helped reduce costs even more.

The trip, like the one the previous year to New Orleans to rebuild houses destroyed by Hurricane Katrina, is an equal blend of education and community service. “We talk about service and immersion in a culture, but there is a huge educational aspect to it,” Rausch said. “That’s why people are at Pacific: to get an education, and there are so many different forms that takes.”

Rausch plans to take another group to Mexico in 2010. “The community we worked with sees us as partners,” she said. “When all the dust settled, we were secretly thinking, ‘we have to go back there.’”
Prowl’n the Mile: Engaging Community

By Faith Merino ’08

Desperate times call for desperate measures. With a receding economy and panic barely contained, financial recovery comes from those willing to take risks, adopt innovative and experimental strategies and engage social development. Pacific’s Eberhardt School of Business is on the forefront of these methods of adaptation and innovation.

Marketing Professor Sacha Joseph Mathews challenged her students to develop an event that provides business students with opportunities to put marketing skills into action, engage the Stockton community and benefit a charity.

“Prowl’n the Mile” is the experiential-learning collaboration between Mathews’ business-marketing students and Conservatory of Music Professor Keith Hatschek’s music management department. The event was held on the “Miracle Mile,” in the area of Pacific Avenue between Alder Street and Bedford Road on a Saturday afternoon in April 2009.

Seventy students participated in the event, with 30 taking leadership roles. They were divided into seven groups: music and entertainment, sponsorship, operations, volunteer recruitment, newsletter, marketing and promotions, and finance.

The resources to make the learning opportunity happen came from the Pacific Fund. Mathews applied for and received a grant to cover every aspect of the event, which included live music, tent rentals, portable toilets, and 4,000 copies of a print newsletter.

Prowl’n the Mile also supported a charitable cause. Mathews was speaking with Miracle Mile Improvement District officials in their office when she met representatives from nearby El Dorado Elementary School, who were looking for sponsorship for low-income fifth graders to attend Science Camp. Funding for the program had been recently eliminated by the school district. Sixty percent of the generated revenue from Prowl’n the Mile went to this cause.

More than 500 people attended the outdoor festival that included 38 businesses. Over $1,600 was generated through the sales of wine-tasting, game and after-party tickets, with $1,000 going directly to El Dorado Elementary School. The remaining money helped fund additional community outreach efforts.

“We had a very good turnout,” Mathews said. “Especially considering the fact that there was no paid advertising. It was all word-of-mouth.” It was such a success that the City of Stockton has asked Mathews and her students to hold a festival at the city’s downtown waterfront.
Performing Gender

By Sara Mirels ’09

The third week in April 2009 marked Pacific’s premier Gender and Performing Arts Festival. Gesine Gerhard, professor of history and director of Gender Studies, and library faculty member Michelle Maloney requested a grant from the Pacific Fund to make the event possible. The goal of the project was to inspire creative and intellectual engagement through the mediums of art, music, theater, film and poetry. Assisting Gerhard in the yearlong process of planning and executing the festival were four faculty members: Michelle Maloney of the William Knox Holt Memorial Library, Cynthia Weick from Eberhardt School of Business, and from College of the Pacific, May Mahala in Theatre Arts and Dave Hall in Psychology.

Performing Gender

The event evolved into a dynamic festival which included musical performances, student-made films, panel presentations, a mime troupe, Bollywood films and a transgender performer, to name a few.

Highlights including Raising Jane, an indie soul group from Southern California which offered their soothing grooves and rocking beats on sitar and cajon (a Peruvian drum) to kick off the Festival. In the Slam Poetry Contest, participants powerfully expressed the emotional topics of gender within the confines of society.

Gerhard worked with Conservatory of Music faculty to arrange a performance of “D’Un Soir Triste” by Lily Boulanger, a French composer who was denied recognition in the early 20th century because she was a woman. Mahala worked with her students to stage a play about a woman’s fight to survive on minimum wage. Conservatory student Caroline McCaskey ’09 also premiered her song “The Feminine Deal,” based on a poem by English Professor Camille Norton. The San Francisco Mime Troupe performed and engaged students in a discussion afterwards about their work with social justice.

Transgender performer Shawna Virago gave a poignant look at her experience as a transgender person. “Transgender people have struggled with the knowledge that the sex they were born with does not reflect their true gender and how they want to live in society,” Maloney said. “Many social stereotypes and biases have to be worked through, and it isn’t easy. It was a moving way to wrap up the festival.”

The festival was a huge success. Hundreds of students participated, both as performers and audience members. Through the variety of activities, students were exposed to new perspectives and were stimulated to think about gender and its role in our everyday lives. This program would not have been possible without support from the Pacific Fund.

Director of the Gender Studies Program Gesine Gerhard (left) and Library faculty member Michelle Maloney (right) received a grant to produce an interdisciplinary event series that explored aspects of gender through the performing arts.
Toward a Better Bite

By Kyrsten Keith ’09

Dental hygiene is one of the fastest growing fields in America, and Arthur A. Dugoni School of Dentistry’s dental hygiene program strives to keep Pacific’s dental hygienists at the forefront of the field. A recent purchase enabled Pacific’s students to take another bite out of the competition.

Clinic coordinator Elena Francisco received a Pacific Fund grant to purchase CariScreen, a caries-susceptibility testing meter. “We want our students to be on the cutting edge by giving them access to the newest risk-assessment technology,” she said.

Caries, or tooth decay, is a bacterial disease that causes demineralization of teeth through frequent exposure to sugar and starches. By determining a patient’s risk for developing cavities, dental hygienists can better prescribe personal treatment and recommend individual remedies for the problem. The latest ideas for thwarting tooth decay involve making the mouth inhospitable to the bacteria that is its main cause. Hygienists can also re-mineralize a tooth before an actual cavity develops, reversing small holes as they start to appear.

Two tests help with the diagnosis. One tests the acidity or alkalinity of a patient’s resting saliva which isn’t stimulated by eating or the thought of eating. A neutral pH factor is preferred. The CariScreen is used for the second test, where the hygienist takes a swab of a patient’s teeth. The meter calibrates the amount of bacteria in a client’s mouth, a quick test that gives the hygienist valuable information about a patient’s cavity susceptibility.

“Patients appreciate seeing numbers associated with their dental health,” Francisco said. It is tangible evidence of improvement.

Hygienists can now give patients detailed, individual tooth-care regimens rather than the typical generic directions to just brush and floss. The tests may also trigger more questions for the patient, which in turn helps to determine better care.

Francisco is concentrating now on integrating the CariScreen meter into Pacific’s dental hygiene curriculum. She eventually wants to conduct research that will help her students continue as the best hygienists in the field.◆

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How to Read a Fish

By Kent Linthicum ’09

Water is vital to life, and water quality is of primary importance in the arid state of California. For ichthyologist and biology Professor Stacy Luthy, Pacific is a perfect place for her research, positioned so near to the San Joaquin and Calaveras Rivers and the San Joaquin Delta.

“We are in a unique position in the Delta, and now we are going to be able to step up and study the water around us, to understand the ecosystem and our impact on it,” Luthy said.

She is excited about the possibilities generated by a new piece of specialized equipment. A Pacific Fund grant helped pay for a dual-frequency identification sonar or DIDSON, which helps Luthy find and identify fish, even in the murky waters of the Delta.

The DIDSON’s advanced sonar technology gives clear, three-dimensional images in fluid environments. The system is used in the military, by the National Oceanic and Atmospheric Administration and others who study the environment, but it is one of only a few in California and the only one in the San Joaquin-Sacramento River Delta.

Many species of fish inhabit the rivers and streams around Stockton. The fish themselves can provide insight into the ecosystem as well as simply offering details about the Delta fishery. Other professors will use the DIDSON in their research, too, including biology Professor Mark Brunell. He is investigating the structure of the feeding relationships within the Delta ecosystem with Engineering and Computer Science Professor Gary Litton. Brunell is looking for microscopic organisms while Litton is interested in the water itself. Luthy completes the ecosystem triumvirate with her study of large species.

Students will receive the greatest benefit from the new technology. They will be taking it into the Delta by boat and monitoring it as it’s used to collect data from the San Joaquin River’s deep water channel. When they return to campus, they’ll analyze the data they collected and will be able to present their findings in research papers and poster presentations. Master’s degree students will have access to the DIDSON for their graduate research as well. Research findings will enhance classroom instruction in a number of biology courses.

“This is going to really revolutionize what we know,” says Luthy.◆
A Vision for Diversity

By Kyrsten Keith ’09

America isn’t a melting pot anymore; it’s a salad bowl, where each delectable morsel is unique, colorful and good for the organism. People don’t meld together so much as they express their individual integrity, offering character to the whole of the country.

Ah, it sounds so nice, until we need to deal with the realities of racism, sexism and other prejudices.

Pacific’s Student Life division decided to tackle these preconceptions with an all-day in-service workshop for all division employees made possible through a grant from the Pacific Fund. Visions Inc. consultants used innovative techniques that focus on team building, communication and organizational development, with goals of achieving greater productivity, creativity and employee engagement through a multicultural approach. They targeted many different kinds of bias, specifically emphasizing gender, race, class and sexual orientation.

University Chaplain Donna McNiel said the main goal of the program is to help each person begin to make a difference internally, and then in the world around them. “There are many benefits to recognizing one’s own cultural distinctiveness,” she said. “This kind of change takes a lifetime.”

Other campus entities, including Human Resources and some graduate studies courses, are using the principles taught by Visions. McNiel hopes these principles will be incorporated more widely in coming months. She is planning a four-day workshop, with many of the Student Life participants that are taking on leadership roles.

Sharing experiences and role-playing help people to see how their prejudices are ingrained. “There is no judgment or ‘guilting’ of participants,” McNiel said. “And there is lots of honesty.

“We have noticed significant development in those who attended the training,” she said. “The ongoing effort is intended for those who work specifically in multicultural and multiracial atmospheres.” She acknowledges that the Visions workshop isn’t a quick fix for prejudice engrained since childhood, but she believes through the Visions Inc. workshops, Pacific is making a worthwhile effort to inspire both individual change and change in the community.

With programs like Visions Inc., Chaplain Donna McNiel supports Pacific’s aspiration to educate the whole student and to cultivate a campus climate that embraces diversity.
Faculty Scholarship and Research

We will support our teacher/scholar community so our vibrant scholars, researchers and artists continue to bring distinction to themselves and the University.
The Big Valley

By Kent Linthicum ‘09

The Big Valley

University of the Pacific has been intrinsically linked with California’s Central Valley since its move to Stockton in 1924. Stretching over 42,000 square miles— the size of Tennessee—the Central Valley is one of the world’s most productive agricultural regions, with cities and towns dotted among its fertile orchards and fields.

In 2006, a collaborative partnership called the Partnership for the Assessment of Communities (PAC) was initiated by the Great Valley Center, a non-governmental organization, with a grant from the state. The purpose was to investigate social, political, health, and economic issues that are unique to the Valley.

PAC is a collaborative social-science project among Pacific, the University of California at Merced and California State University at Fresno. The research team is made up of five faculty members from each university. Sociology Professor Marcia Hernandez and Political Science Professor Dari Sylvester are Pacific’s representatives.

The ten-year study will document conditions in the Central Valley and note changes in regional disparities. The team selected six areas for the study that represent both urban and rural areas and northern and central parts of the region. Sylvester and Hernandez employ students from Pacific to help collect data from the Magnolia District of Stockton and Riverbank, a farming community in nearby Stanislaus County.

After receiving training in data collection, the students go into these communities for interviews. They learn interview techniques and how to build rapport with others. They also learn how to analyze the data collected. The research will help them to critically re-examine assumptions about areas they know and to explore the social, political and economic changes in the Valley from different perspectives.

Pacific Fund grants provided the resources to pay the students for their work, as well as the opportunity for undergraduate research. The students who participated all indicated they learned a great deal by working on the PAC project.

The PAC experience extends students’ understanding of what it means to be part of a community and the importance of being an informed, engaged citizen. All of the students that were involved with PAC from University of the Pacific applied to graduate school.

This multidisciplinary project will provide valuable information on the quality of life in the Central Valley, about residents’ perceptions and experiences, and community problem-solving solutions. It has the potential of offering a unique contribution to local efforts to improve community health: economically, socially and environmentally.
Teaching Music through the Centuries

By Faith Merino ’08

Music is the international language. It is also intergenerational and interdisciplinary.

This is a subject that Conservatory of Music Education Professor Ruth Brittin investigated in her research paper on the ways music has been taught by major figures in the music world during the last century. Her findings reveal the multifaceted nature of music as an art, science and craft, as well as the variety of approaches that have been taken to music education.

Brittin teamed with Deborah Sheldon of Temple University in 2007 and contacted libraries around the country. With graduate students from both universities, they combed through databases and contacted other schools to find accessible materials.

They researched individuals like Carl Flesch, a Hungarian violinist and teacher who published several instructional books in the early 20th century. He supported the concept of the violinist as artist rather than virtuoso (one with a unique skill or technique). Other figures included Hyacinthe Klosé, a 19th-century French clarinet player and professor at the Conservatoire de Paris renowned for his design improvements to the clarinet.

Brittin and her team examined historical practice strategies by music educators over the past three centuries and found an interesting spectrum of teaching philosophies. Music education in the late 1800s was largely a matter of craftsmanship, and music educators based teaching on the practices they had learned. In other words, “I’m teaching you this way because that’s how I was taught,” said Brittin.

“There has been more emphasis on scientific principles in recent years, such as neuromuscular and brain development. In the last half-century, music education has become more scientific and art-based,” she said.

The project took six months to complete. In November 2007 Brittin submitted the paper at the International Society for Music Education (ISME) conference. Competition to present at this conference is stiff, “in part because the commission pays for the presenters’ hotel costs during the seminar,” she said.

ISME’s summer 2008 conference in Portugal emphasized the cross-cultural nature of music and included presenters from around the world. A Pacific Fund grant which covered the cost of Brittin’s airfare made it possible for her to attend the conference to present the paper.

“I believe the dissemination of this research is good for the Conservatory because it is a topic addressing both performance and music education,” she said. At the conference Brittin was able to interact with music educators from all over the world about current theories and practices in music education; to experience the Portuguese music scene, including Fado, a type of plaintive Portuguese folk music; and to represent the Pacific Conservatory’s academic excellence.
On the Cutting Edge of Physical Chemistry

By Faith Merino ’08

Before asking Dr. Balint Sztaray about his recent trip to the Swiss Synchrotron Light Source, you may want to brush up on your chemistry. The Pacific chemistry professor was awarded a grant from the Pacific Fund to spend two weeks at the Swiss Synchrotron Light Source at the Paul Sherrer Institute in Villigen, Switzerland.

While an X-ray penetrates the surface of something to look for bulk properties (like bones), synchrotron light beams are sharply focused, like laser beams, and allow for the examination of the surface of a material. The spectrum of synchrotron light ranges from infrared light to soft and hard X-rays.

Sztaray specifically wanted to carry out Photo-electron Photo-ion Coincidence Spectroscopy (PEPICO) in the newly constructed iPEPICO experimental end-station, SLS’s vacuum ultraviolet (VUV) beamline. He explained: PEPICO “uses vacuum ultraviolet light to ionize a gaseous molecule to form a positive ion and an electron.” The two are both analyzed to find the energy of the ion. “The whole experiment has to be in a vacuum, at a pressure more than a billion times lower than air.”

PEPICO is important to basic energy research. One of the holy grails of modern synthetic chemistry, according to Sztaray, is the “selective activation of the carbon-hydrogen bond in hydrocarbons.” His research could establish a basic framework for further research toward the use of methane fuel.

Sztaray wanted more from this project than basic research, however. His goal was to make this research trip an experiential learning opportunity, and he specifically requested enough money to bring along two students as research assistants. “When I was an undergraduate student, I spent almost as much time in the research lab as I did in the classroom,” he said. “Students can learn more by completing an inspiring research project than taking a course and focusing mostly on getting the best grade in it.”

The trip was a one-of-a-kind opportunity for students Sampada Borker ’11 and Lauren Ooka ’09 to work in another culture with leading scientists in the field. “From an undergraduate perspective,” Ooka said, “this trip gave me an opportunity to apply all of the skills that I have been learning in the classroom to the real world. I was able to learn more about this particular field, and I was also given the opportunity to work closely with people from around the world.”

As the Synchrotron Light Source was built by physicists for chemists, Sztaray believes research will “illustrate how the traditional boundaries of science are meaningless when it comes to an interdisciplinary field like physical chemistry—or chemical physics.”

Chemistry Professor Balint Sztaray gave students Lauren Ooka ’09 and Sampada Borker ’11 a once-in-a-lifetime opportunity to do groundbreaking research at the Swiss Synchrotron Light Source in Switzerland.
Advancing African-American Theatre

By Alia Knight ’12

Macelle (May) Mahala joined the Theatre Arts faculty in 2007. As a graduate student she worked with the Penumbra Theatre Company in St. Paul, Minn., one of the country’s oldest and most respected African-American dramatic companies. Mahala thought Penumbra’s story should be told.

Mahala applied for and received a Pacific Fund grant to travel to the University of Minnesota to do archival research on the company. Founded in 1976, Penumbra Theatre Company has featured such prominent members as Pulitzer Prize-winning playwright August Wilson, author of “Fences” and “Joe Turner’s Come and Gone.”

Presenting artistic productions from an African-American perspective for more than 30 years, the company is the recipient of the Jujamcyn Award, “Best Theatre for Drama” by City Pages, and “One of Ten Companies that Make a Difference” by Stage Directions magazine. The company is also recognized for extensive outreach programs that educate thousands of students in the theatrical arts. It is one of three professional African-American theatres in the nation that offers full seasons of performances.

“I was very impressed by their mission, the quality of the theatre they produced, the social relevance of the work they did, and their engagement with the local community,” Mahala said. She hopes her book will portray the way the company’s work has “contributed to the character and practice of African-American theatre on both a local and a national level.”

Mahala wasn’t naïve about the rigors involved in producing a book that would accurately illustrate such a well-known and influential theatre company. Her grant also covered her participation in a junior faculty publication workshop, where she received feedback and guidance for her project.

Senior theatre professionals were paired with select junior faculty, acting as mentors and sharing their experience and advice about academic publishing.

Mahala said that participating in this event helped her “hear about the best practices and submission protocol from some of the top academic publishers and senior scholars in Theatre Arts.” This advice encouraged her to gear her own project toward a more specific audience.

“Writing a book takes a long time, and when you do it for the first time, you make some mistakes and it takes twice as long as you think it’s going to. I have revised my first chapter substantially based on some very helpful feedback I received from my colleagues,” she said. “I personally think professional development in this regard is very important, so I am very grateful for the support that this grant provided to help me make and maintain those kinds of connections.”

Pacific Fund Grants help young professors like May Mahala develop professionally as scholars in their field.
Food Sovereignty and the Politics of Agriculture

By Alia Knight ’12

It’s a new term: food sovereignty. The movement holds that everyone has the right to safe, adequate and nutritious food and clean water; the right to produce your own food; the right to control natural resources. It involves a commitment to sustainable, ecological agriculture and equitable and fair trade in support of human rights.

School of International Studies Anthropology Professor Analiese Richard was interested in how the food sovereignty movement arose in Mexico and by what means it has gained traction and spread across that country. She previously researched non-governmental organizations in rural Mexico and the impact the international economy has on food production and independence for its producers. She focused on the relationship between local agriculture and political movements in Mexico that have changed the cultural makeup of society and its relationship with its government.

“The changes I was researching were taking place in one area of Mexico, but they were part of a much larger shift in Mexican society and politics,” she explained. The country was disrupted by a rocky integration into the global market. This is best illustrated by the Tortilla Crisis, where the price of corn on the world market became so cheap, and Mexico began to import so much, that local corn farmers were no longer able to make a living. Mexican citizens began to think of themselves as individual voices in a democratic government that was obligated to them.

Richard received a Pacific Fund grant to further her research. She was able to obtain information from various archives to consider perspectives of the political and social aspects of food sovereignty. She also hired a talented undergraduate student to survey different media outlets, both Mexican and foreign, and assess how they each framed the problem. “That’s one of the things I love about Pacifi c,” she said, “undergraduates do research here.”

Richards’ research is still in process, as social-science investigations are usually long-term. She is grateful to the Pacifi c Fund for its part in initiating the project. She’ll use some of her grant to travel to Mexico for ethnographic field research, to observe life in agricultural Mexico first-hand and interview leaders in this new movement.

She will also do a literature survey and examine the efforts of community organizers in the Central Valley regarding their involvement in the food sovereignty movement. This includes the relationships of immigrant and migrant workers.

The project has already allowed her to open dialogues with other scholars. Recently, she had the opportunity to share her project in a panel discussion at a conference in Brazil.
Assessing the Culture Gap

By Kate Casey ’10

Culture is about shared experiences and environment that influence how a group of people thinks and acts. Culture is responsible for differences in language, custom, religious belief and mannerisms among groups of people from different regions. In an increasingly interdependent world, it is easy to understand why intercultural education is important.

Susan Sample, political science professor in the School of International Studies (SIS), makes culture the subject of an extensive study spanning several years, majors, departments and academic disciplines, with an eye to assess students’ ability to deal with cultures different from their own.

“My research is based on intercultural competence: the ability to recognize the differences in people based on culture,” Sample explained. “We want our students to be competent in intercultural dealings.”

Sample has conducted research for four years to determine if SIS is staying true to its mission to create global citizens. She uses a survey based on the Intercultural Development Inventory, a “quantitative inventory that measures attitudes toward, recognition of, and adaptation to cultural differences.” She hypothesized that seniors who took two semesters of cross-cultural training and studied abroad would score differently than incoming freshmen and other seniors who had not had the training nor intercultural experiences. “Since intercultural understanding is a goal of the university, the results should tell us if our program is helping develop a student’s competence,” she said.

And does it?

“Yes,” Sample said, “evidence suggests that being in an international curriculum does increase students’ intercultural competence.”

Three years into her work, Sample received a grant from the Pacific Fund to broaden her research to a wider University student population. She selected students from Pacific Seminar I (taken in the freshman year) and III (taken in the senior year) classes as control groups to compare with students who took cross-cultural classes required for studying abroad. She was able to gather empirical data to measure the growth of diversity understanding as well as the means to deal with it.

The need for intercultural competence is not limited to SIS students; it is a University-wide aspiration. Sample extended her research into majors and programs that deal with both domestic and global intercultural differences. Her research will benefit the University as a whole in its goal to prepare leaders as global citizens and promote intercultural understanding.

Professor Susan Sample’s research will help the University prepare leaders for a global society.
The Fight to Survive

By Sara Mirels ’09

Having grown up with a father and several friends with Type 1 diabetes, Pacific History Professor Caroline Cox was interested in understanding more about the history of the treatment of this chronic disease. While reading “The Discovery of Insulin” by Michael Bliss, Cox became intrigued by the story of Elizabeth Evans Hughes, who was diagnosed with diabetes in 1919 at age 11. At that time, the diagnosis was tantamount to a death sentence.

But Hughes clung to life. When insulin was discovered three years later, she was one of the first to receive treatment.

Cox read that the girl’s letters from this period were in the library at the University of Toronto. Reading the letters, she realized that the account of the girl’s diagnosis, treatment, and her life after insulin was compelling and inspirational. Cox decided to write a book about Hughes.

Most books about diabetes have focused on the drama of the medical research, not on the experiences of those who suffered from it. Cox’s biography is a story of Hughes’ struggle to survive—how she clung to life while rapidly losing weight on a diet of 800 calories per day, the only treatment at that time.

Hughes was 15 and weighed only 45 pounds when she began receiving the insulin that saved her life. Within a few months her weight doubled, and she lived to become a housewife, mother of three children, and a civic-minded volunteer for charitable boards and educational institutions. “The Fight to Survive: A Young Girl, Diabetes, and the Discovery of Insulin,” will be out November 2009.

Hughes’ story is a testament to the sustaining power of hope.
Meet the Authors

Kate Casey ’10, International Relations and Global Studies, Spanish Literature

Kate is the daughter of Pacific alumni and played on the water polo team. She has studied Spanish at Bahia Blanca, Argentina, and plans to attend graduate school to study linguistics and international relations.

Kyrsten Keith ’09, English and Philosophy

Kyrsten graduated summa cum laude with plans to study in Spain for a semester and continue her education with a graduate degree in screenwriting.

Faith Merino ’08, English

Faith has written and published several short stories and a book on adoption and surrogate pregnancy. She began working on her master’s degree in humanities and social thought at New York University in 2009. She is writing her second book.

Sara Mirels ’09, International Relations and Global Studies

While a Pacific student, Sara played collegiate women’s water polo, rowed on the crew team, served as a resident assistant and student advisor, tutored at a local elementary school, and made sushi at the DeRosa University Center. Sara is a Student Services Advisor at Heald College in Honolulu, Hawaii, her home state. She surfs with her father every morning.

Tarn Painter-MacArthur ’09, Business

Tarn is a published journalist and poet whose work focuses on eco-political and global issues. He was involved in student government at Pacific, serving as a senator for Eberhardt School of Business and as senator-at-large. He plans to spend a year in Chile teaching English, studying Spanish and pursuing his writing, and then to return to the U.S. in 2010 to begin graduate studies in English.

Alia Knight ’12, International Relations

Alia was born and raised in Washington’s San Juan Islands and has a long-standing passion for writing everything—from essays to poetry. She plans to work in the international non-profit field.

Kent Linthicum ’09, English

Kent graduated magna cum laude from Pacific and was involved in pep band, writing group and rowing club. He spent the fall 2008 semester in Santiago, Chile. He wants to tell stories and hopes to become a successful fiction writer.

Kyrsten Keith ’09, English and Philosophy

Kyrsten graduated summa cum laude with plans to study in Spain for a semester and continue her education with a graduate degree in screenwriting.

To find out more about Pacific Fund Grants and Scholarships or to give to the Pacific Fund, visit www.Pacific.edu/PacificFund or call 209.946.2500.