

**Alliance/Merck *Ciencia* (Science) Hispanic Scholars Program
2010 *Ciencia* National Scholarship Recipient Profiles**

Casey Boyle
University of Michigan, Ann Arbor; Ann Arbor, Michigan
Mechanical Engineering

Volunteer work with disabled populations influences career in mechanical engineering. Casey Boyle, 19, is entering his sophomore year at the University of Michigan, Ann Arbor with a 3.56 grade point average in mechanical engineering. His teachers describe him as a determined, committed and diligent worker who creates a positive learning atmosphere in class. Boyle has worked as a lifeguard and aide at ARC of Orleans County, lifeguard and teacher for the Town of Oakfield, laborer at Cayuga Onondaga Boards of Cooperative Educational Services, manager for track, vice-president of the Spanish Club, and class president in his school's student government. He has also participated in varsity cross country, swimming and track and in such groups as the Multicultural Engineering Programs Office, Boy Scouts, National Honor Society, Math League, his church youth group and a band, where he played the trumpet. Adopted at birth, Boyle's parents taught him to be open-minded and embrace differences, whether in color, status or views. Because of that, he never turns down a new experience, as it challenges him intellectually and broadens his perspectives on people. Boyle hopes to become a mechanical engineer, which would combine his love of science, math and people. He aspires to design and create innovative assistive technology to improve the lives of handicapped people.

Richard Calatayud
University of Florida; Gainesville, Florida
Mechanical Engineering

A passion for machines and a knack for solving problems lead to a career in mechanical engineering. Richard Calatayud, 19, is entering his junior year at the University of Florida with a 3.71 grade point average in mechanical engineering. His teachers describe him as a mature, intelligent and passionate student who possesses exceptional persistence. He participates in the Florida Swing Dancing Club and has worked with Gator Motorsports building a racecar. Calatayud believes his Hispanic heritage gives him the personal tools he needs, like an outgoing nature, curiosity of other cultures and being bilingual, and the motivation to use these tools to succeed. Calatayud is interested in the design and automotive aspects of mechanical engineering. He enjoys coming up with multiple solutions to problems and loves machines, even buying a motorcycle in desperate need of repair so that he could work on it. The ability of a device to augment human potential excites him as well as the varied ways one can incorporate electronics in motor vehicles these days. Calatayud hopes to become a reputable professional engineer and envisions himself working on large projects in which he is responsible for the design and function.

Alejandro Cervantes
California Polytechnic State University, San Luis Obispo; San Luis Obispo, California
Computer Sciences

A father's example inspires career path in software engineering. Alejandro Cervantes, 19, is entering his sophomore year at California Polytechnic State University, San Luis Obispo with a 3.43 grade point average in computer sciences. His teachers describe him as mature, helpful and a consistent and dependable leader. Cervantes has worked at Feed the Hungry, Ramona Food and Clothes Closet, Vacation Bible School, and People's Kitchen, and was a member of his community's

Teen Leadership Team. Cervantes' father, a video engineer, inspired him to choose software engineering as his career goal. Through his father, Cervantes also came to understand the value an education brings to a family. For many years, Cervantes has regularly read through magazines like Popular Mechanics, browsed through Google's sci-tech section and fixed his family's computer. More recently, he participated in the 2009 FIRST Robotics Competition. Cervantes has also studied Spanish as a second language so that he can travel to Mexico and help people become more advanced in their everyday use of computers.

Armando De los Santos
University of California, Los Angeles; Los Angeles, California
Electrical Engineering

A family legacy in manual labor inspires career path in electrical engineering. Armando De los Santos, 21, is entering his senior year at the University of California, Los Angeles with a 3.13 grade point average in electrical engineering. His teachers describe him as a gifted, imaginative and curious individual who demonstrates initiative when working individually, and collaborates well in groups. De los Santos has participated in the Society of Latino Engineers and Scientists, worked as president of the College of the Canyons Engineering Club, inter-club council representative of the College of the Canyons Chemistry Club, workshop facilitator for Mathematics Engineering and Science Achievement (MESA), and mathematics tutor at Extended Opportunities Programs and Services (EOPS). He has also contributed as side walker at Saddle-Up Therapeutic Riding Stables, conversation partner at ESL Language Centers and volunteer at Heal the Bay. De los Santos learned his strong work ethic from his grandfather, who built a house for his wife with his bare hands, and his mother, who taught him the importance of an education and motivation. From them, De los Santos learned the art of working with his hands and pushing limits. In middle school, he earned his amateur HAM radio license and more recently, conducted an experiment for the California NanoSystems Institute where he investigated the effects of silver nanoparticles on fermentation in yeast cells. In the future, De los Santos anticipates joining the nanotechnology workforce and hopes to work for Sony.

Gerardo Domínguez
Chicago State University; Chicago, Illinois
Management Information Systems

A fascination with computers and interest in occupational flexibility leads to a career path in management information systems. Gerardo Domínguez, 28, is entering his senior year at Chicago State University with a 3.9 grade point average in technology. His teachers describe him as a brilliant, hard working and inquisitive student leader who works well with others. He has worked as customer service specialist at IST Management Services, sales associate at Office Depot, customer service representative at Time Warner Cable, and operations supervisor at United Parcel Service. On campus, he has served as cofounder and president of the Management Information Systems club, website designer for the National Association of Black Accountants and member of the Organization of Latin American Students. Domínguez learned from his mother to be responsible for his choices and that his environment does not dictate his future; it only makes his victories more significant. He chose to major in management information systems because of his fascination with computers and for the occupational flexibility it offers. When he graduates, he hopes to work as a systems analyst as he finds it mediates between information technology and business. To keep up to date with business and technology systems, Domínguez has completed courses that focused in SQL, Perl, Java and Basic programs. He has also taught himself to use XHTML and CSS to create web pages and style sheets. In the long term, Domínguez hopes to become a real estate investor and free himself of all debt.

Joely Guzmán**State University of New York (SUNY) at Stony Brook; Stony Brook, New York
Mathematics**

An interest in conserving energy and reducing people's carbon footprints inspires career path in chemical engineering. Joely Guzmán, 20, is entering his junior year at SUNY at Stony Brook with a 3.47 grade point average in mathematics. His teachers describe him as a naturally talented, high achieving researcher with remarkable character. He has performed research for the Louis Stokes Alliance for Minority Participation at the City University of New York (CUNY) Brooklyn College, participated in the 2009 Metropolitan Association of College and University Biologists and attends the Annual Biomedical Research Conference for Minority Students. He also participated in a Susan G. Komen Cure for Breast Cancer Walk, and volunteers at his church and in the Outreach Program at Brooklyn Technical High School, visiting the elderly at nursing homes. Guzmán's mother's words, "Vaya con Dios," as he left for college resonate in him to this day. He loves both math and chemistry and intends to major in chemical engineering. He anticipates making his mark on the environment by contributing to harnessing renewable and alternative energies. He also hopes to empower Hispanics in his community through his work.

Orval Hernández-Marcial**California State University, Los Angeles; Los Angeles, California
Civil Engineering**

Experience living in a developing nation inspires career in civil engineering. Orval Hernández-Marcial, 19, is entering his junior year at California State University, Los Angeles with a 3.25 grade point average in civil engineering. His teachers describe him as a motivated student leader with conviction and impressive reasoning skills. He has worked as events coordinator for the Society of Hispanic Engineers and Science Students, conference coordinator for the American Society of Civil Engineers and member of the College of Engineering, Computer Science and Technology. His mother emphasized the importance of an education and encouraged him to do his best. Growing up in Mexico for the first six years of his life, Hernández-Marcial witnessed the few resources available to people. This inspired him to pursue a degree in civil engineering to improve people's lives, particularly in third world countries. In the near future, he plans to obtain a master's degree in civil engineering and work for the Department of Public Works in Los Angeles.

María Jaime**Manhattanville College; Purchase, New York
Mathematics**

A passion for education leads to a career in teaching and community service to help underprivileged populations. María Jaime, 18, is entering her sophomore year at Manhattanville College with a 3.95 grade point average in mathematics. Her teachers describe her as a compassionate, altruistic leader and role model. Jaime has volunteered as second grade religious education teacher at her church, high school pre-calculus teacher at her school's Science and Technology Entry Program and chairperson of external relations/community service at her school's Ascend Business Society, as well as helping at All Soul's Soup Kitchen and the Helping Hands Mentoring Project. Jaime's mother, who raised her as a single parent, taught her to be independent, self-reliant, and to believe in herself. Jaime hopes to expand her knowledge in math and become a teacher. She also wants to major in business management to support her dream of starting a foundation to build homes and schools in underprivileged areas around the world, especially in Latin America, and award scholarships to Hispanic students who wish to pursue an education but lack the finances to achieve that goal.

Danielle Joaquin
University of Illinois at Urbana-Champaign; Champaign, Illinois
Engineering

Family medical problems lead to career path in biomedical engineering. Danielle Joaquin, 19, is entering her junior year at the University of Illinois at Urbana-Champaign with a 3.9 grade point average in engineering. Her teachers describe her as a bright, exceptional student and leader with a pleasant personality. She has worked as a lunch director at Engineering Council Engineering Week, mentor at Convopartners, and participated in her Campus Honors Program, Engineering Council, Women in Engineering group, the Society of Hispanic Professional Engineers, Engineers without Borders, and the University of Illinois Robotics Competition. She has also planned, designed and fabricated a complex machine as part of the Rube Goldberg Team and conducted reef research in Curacao, Netherlands Antilles as part of her Campus Honors International Study tour. Witnessing how hard Joaquin's uncle and other relatives worked to succeed has inspired her to follow their example. Growing up in a home where medical problems are the norm, Joaquin aspires to pioneer new technologies that make it easier and less expensive for people with medical conditions to live healthier lives.

Andre Kiss
Ursinus College; Collegeville, Pennsylvania
Biological Sciences

A curiosity for science leads to a career path in neuropsychology or teaching and conducting research in neuroscience. Andre Kiss, 19, is entering his sophomore year at Ursinus College with a 3.91 grade point average in biological sciences. His teachers describe him as enthusiastic, inquisitive, tenacious and hard working. Kiss has worked as tour guide, phone-a-thon caller and English as a Second Language teacher at Ursinus College, technology worker at Easton Area High School Technology Department, game advisor at Game Stop Inc., and landscaper at Mike Mesko Landscaping. He also participated in such groups as the S.T.A.R. Club, promoting sexual health awareness on campus, played in his school's jazz band, sax quartet, Ultimate Frisbee Club, and worked at Wismer on Wheels, packaging leftover food in campus dining halls and delivering them to soup kitchens. Kiss's mother pushes him to improve his academic performance and provides him with the love and comfort of his Colombian culture. His curiosity led him to the field of science and later to neuroscience. He is most interested in the implications of neurological processes on human behavior. After he earns a Ph.D. in neuroscience, Kiss hopes to become either a professor that conducts neuroscience research or neuropsychologist.

Miguel Larios
University of California, Los Angeles; Los Angeles, California
Biological Sciences

An internship at a children's hospital leads to a career in medicine and research in developmental biology. Miguel Larios, 19, is entering his sophomore year at the University of California, Los Angeles with a 3.17 grade point average in biological sciences. His teachers describe him as a responsible, dedicated and goal-oriented leader eager to help his classmates. Larios has interned at the Latino and African American High School and Camp Children's Hospital Los Angeles, and volunteered at the American Red Cross, Penny Drive, Toy Drive, and local Feeding America food drives. His family taught him to be humble, work hard and learn without boundaries. Larios wants to help people as a doctor and perform research in developmental biology.

Ana Lazcano
California State University, Fresno; Fresno, California
Chemistry

A dentist's visit to her class inspires a career in dentistry. Ana Lazcano, 19, is entering her sophomore year as a chemistry major at California State University, Fresno with a 4.0 cumulative grade point average. Her teachers describe her as a cheerful, positive and responsible worker with the drive and determination of two people. She has worked as a tutor at Grandma's House, volunteer at the American Cancer Society and at her church and chairperson at the Colleges Against Cancer club. Lazcano's older sister, a college student, has acted as her role model and inspired her to dream big and to never give up on her goals. After a dentist visited and spoke to her class about the profession, Lazcano decided to pursue a career in dentistry. As her family never had the opportunity to receive dental care, Lazcano promises to provide that service to them and other low-income families.

Marco Lem
California State University, Sacramento; Sacramento, California
Civil Engineering

Work in the construction industry inspires career in improving structural design procedures. Marco Lem, 31, is entering his junior year at California State University, Sacramento with a 3.75 grade point average in civil engineering. His teachers describe him as a motivated, self-assured and disciplined leader with vision, compassion and humor. Lem has worked as treasurer for Scholars Taking Action for a Nationwide Dream and ironworker at Harris Salinas Rebar. Lem says his parents instilled in him the values of work and responsibility, as well as pride, humility and care. His family taught him the importance of using resources efficiently, which influenced him to learn about the environment and improving wood usage in construction sites. Lem's experience working in the construction industry inspired his desire to improve design procedures in terms of safety, economy, and protecting the environment. In the short term, Lem is working on passing the Fundamentals of Engineering exam by the end of his undergraduate career.

Darío López
Portland Community College; Portland, Oregon
Electrical Engineering

A passion for community service leads to a career in electrical engineering. Darío López, 27, is entering his junior year at Portland Community College with a 3.4 grade point average in electrical engineering. His teachers describe him as a dedicated and focused quick learner who works well with others. López has worked in construction and as an installer at New Era Install. He also managed a community soccer team. Lopez's family encourages him to believe in himself and work toward his goals. Learning about how electronics work has always intrigued López. In the near future, he hopes to transfer to Oregon Institute of Technology to finish his bachelor's degree. In the long-term, he hopes to make inventions or discoveries that improve the lives of people in developing nations. He also aspires to contribute to his community by starting a business that would construct environmentally responsible projects as well as create jobs and wants to teach engineering to help the Latino community become more informed.

Austin Loza
Schreiner College; Kerrville, Texas
Mathematics

A passion for teaching inspires career mathematics. Austin Loza, 20, is entering his junior year at Schreiner College with a 4.0 grade point average in mathematics. His teachers describe him as bright, thorough, and creative with a good sense of humor. Loza has worked as tutor/mentor at Kerrville Independent School District, family tutor, advisor at Pre-Freshmen Engineering Program, mentor at the Peer Assistance Leadership program and has participated in the National Honor Society, National Youth Leadership Conference, Texas Boy's State, Resident Hall Association and on his college baseball team. Loza treasures his family for embracing his heritage that has formed the building blocks in his life; his aunt taught him to cook and dance and his grandfather taught him to have confidence in himself and the decisions he makes. Through helping his mother take care of the family, Loza discovered his passion to teach and coach. He hopes to articulate how math processes work to those who have difficulty with the subject and anticipates developing skills to recognize common successful learning patterns.

Heidi Márquez
Regis University; Denver, Colorado
Biological Sciences

A passion for the disadvantaged inspires career in neuroscience. Heidi Márquez, 21, is entering her senior year at Regis University with a 3.96 grade point average in biological sciences. Her teachers describe her as energetic, attentive and well spoken with the guts to succeed. Márquez has worked as a member of the Hospitality House and Mi Gente club, teacher's assistant for her school's freshman seminar writing and English at Family Focus Points, and freshman algebra tutor at Regis University and the Berkeley Elementary School. Márquez views her move to the U.S. at age five as an opportunity to grow and accomplish what her parents never had the opportunity to. Her fascination with the human body is what inspired her to study biology and her interest in the nervous system helped her decision to study neuroscience. Márquez wants to become a doctor, as she believes the purpose of an education is not to distance yourself from the places that had nothing to offer you, but to submerge yourself back in them and offer them everything you have gained.

Alexa Mieses
CUNY City College; New York, New York
Biological Sciences

A prevalence of diabetes in her family inspires a career in medicine. Alexa Mieses, 22, is entering her senior year at CUNY City College with a 3.39 grade point average in biological sciences. Her teachers describe her as a mature and passionate mentor who loves helping her peers. She has worked as a tutor, mentor, patient assistant at Aston Plastic Surgery Services, public policy intern at Gay Men's Health Crisis, summer teaching fellow at the Bronx Zoo/Wildlife Conservation Society and emergency department volunteer at the Clinical and Emergency Medicine Program at Montefiore Hospital. As much of Mieses' family lives with diabetes, she hopes to become a physician and maintain an open dialogue with her patients concerning the risks of obesity and the benefits of living a healthy lifestyle. She also became interested in neuroscience after three of her schoolmates died from drug-related incidents. She is currently conducting research in a neuroscience lab studying visual express saccades.

Celeste Montenegro
East Los Angeles College; Monterey Park, California
Electrical Engineering

Interest in electronics leads to career in renewable energy. Celeste Montenegro, 22, is entering her junior year at East Los Angeles College with a 3.85 grade point average in electrical engineering. Her teachers describe her as a talented, confident and organized individual who communicates well and is patient when tutoring her peers. Montenegro has participated in her school's physics and astronomy clubs, and tutored math at her school and at Compton Adult School. She was coach for the Adelante program and researcher for Research Experiences for Undergraduates, where she communicated the importance of using hydrogen as a power source and designed schemes for the location of solar panels. Montenegro's family instilled in her the importance of an education: in high school, she recognized her talent in science and math and registered for an electronics course out of mere interest. When she arrived for her first class, she realized she was the only female, but the ridicule she experienced only fueled her desire to learn more. Montenegro wants to specialize in renewable energy and contribute to developing new technologies so future generations have a place to live and clean air to breathe.

José Navarro
Eastern Washington University; Cheney, Washington
Computer Sciences

A move to the U.S. inspires career in computer sciences. José Navarro, 19, is entering his sophomore year at Eastern Washington University with a 4.0 grade point average in computer sciences. His teachers describe him as a gifted and motivated leader with integrity and a great work ethic. Navarro has worked as a transcriber at EWU Chicano Education Department and conference organizer for the 10th Annual State Latino Educational Achievement Project and participated in the Association of Computer Machinery and STAR Mentoring Program. Navarro believes he is very fortunate to be raised by an educated mother who has shaped his character and attitude, and instilled in him strong family values and foundations for a good education. He cherishes his father for teaching him the importance of working hard to accomplish his goals. After immigrating to the U.S. and learning English, Navarro found his passion in computers and technology. He dreams of becoming a computer engineer and scientist. He believes that young Hispanic individuals will be more than the next generation of doctors, professors, and engineers; they will serve as role models for the opportunities available for future Hispanic generations.

Romina Ortiz
Johns Hopkins University; Baltimore, Maryland
Biological Sciences

Handing out band-aids as a child at the clinic where her mother worked inspires career in medicine and research. Romina Ortiz, 20, is entering her senior year at Johns Hopkins University with a 3.01 grade point average in biological sciences. Her teachers describe her as a well-organized, highly productive worker who has excellent judgment and communication skills. She has conducted extensive research in her undergraduate career in such areas as neuroscience and data analysis for an Obsessive Compulsive Disorder Study at Johns Hopkins Hospital, and epidemiological research of non-small cell lung cancer and genetics research of Parkinson's disease at City of Hope Cancer Research Center. She has also served as social chair of the Organización Latina Estudiantil and member of the Nu Rho Psi Honor Society in Neuroscience. Ortiz's mother taught her the importance of recognizing the value of life and the people in it and her father instilled in her a love and curiosity for science. Since childhood, Ortiz hated seeing sick people because she could not help them and this

inspired her interest in neuroscience. As Ortiz always dreamed of becoming a physician and research scientist, she would accompany her mother to the clinic where she worked and hand out band-aids as a child. Now, she goes to the same clinic and accompanies the physician while he examines and performs surgery on patients. In the long term, Ortiz envisions herself attending to patients at a hospital while conducting research to contribute to new treatments and treatment methods for her patients.

Oscar Rodríguez
Oxnard College; Oxnard, California
Mechanical Engineering

Overcoming trials as a migrant prepares for careers in mechanical engineering and teaching.

Oscar Rodríguez, 18, is entering his sophomore year at Oxnard College with a 4.0 grade point average in mechanical engineering. His teachers describe him as an exceptional student who challenges himself and produces “engineering quality” work. Rodríguez founded the CI Dream Club for undocumented students at his college to increase awareness of private financial aid opportunities for students and began a scholarship fund for transferring students. He is also involved in the VC Clue AB 540 Group to support undocumented students and has served as president of the Channel Islands High School Migrant Club. As a migrant student, Rodríguez had to adapt to new perspectives and integrate, as well as do whatever it took to succeed. He hopes to get a master’s in mechanical engineering, designing engines for aircrafts and motor vehicles. Rodríguez is passionate about teaching and will pursue his teaching credentials after acquiring hands on experience in the mechanical engineering field.

Karina Tlaxcala
Regis University; Denver, Colorado
Biological Sciences

A passion for volunteering leads to a career as a medical doctor. Karina Tlaxcala, 20, is entering her junior year at Regis University with a 4.0 grade point average in biological sciences. Her teachers describe her as enthusiastic, intelligent and consistent with a strong character and refreshing idealism. Tlaxcala has volunteered as peer counselor at Roaring Fork Pre-Collegiate Program, worked as a nanny, and participated in her school’s math club and Mi Gente club. Tlaxcala’s parents have used their initiative and hard work to build a safe and comfortable environment for her. She anticipates putting her bilingual abilities to use working as a medical doctor in underserved areas. She views volunteerism as a blessing and cornerstone in her life and plans to volunteer at local clinics in Colorado and join Doctors Without Borders to serve people in third world countries.

Alondra Vega
Loyola Marymount University; Los Angeles, California
Mathematics

Hispanic teacher role models and an interest in Alzheimer’s disease inspire career in teaching math and advocating for more affordable medicine.

Alondra Vega, 19, is entering her junior year at Loyola Marymount University with a 3.78 grade point average in mathematics. Her teachers describe her as driven, talented and hardworking with an overwhelming desire to help others. She has worked as teacher’s assistant and lab research assistant at her school, student aide for Huntington Park High School and participated in such groups as her school’s math club, Movimiento Estudiantil Chicano de Aztlan, El Espejo mentoring club, Academic Community of Excellence and the Society of Industrial and Applied Mathematics. Growing up, Vega’s family instilled in her the importance of

family, and such values as honesty, dedication and responsibility that helped her pursue her goals. She looks to Hispanic teachers like Jaime Escalante as role models and wants to teach and inspire students herself. Vega is also interested in biology, especially Alzheimer's disease, and has conducted research in mathematical modeling on gene expression. In addition to teaching high school math, Vega wants to study pharmacology and start a nonprofit organization that advocates for more affordable medicine.

Ana Zarco
Reedley College; Reedley, California
Civil Engineering

An interest in applied math leads to a career path in civil engineering. Ana Zarco, 21, is entering her sophomore year at Reedley College with a 3.39 grade point average in civil engineering. Her teachers describe her as an enthusiastic, intelligent and determined leader and talented tutor. She has worked as a receptionist at a hotel, and served as a mentor, member of the S.T.E.M. Ambassador program at her school, Upward Bound tutor, and youth leader and official translator at her church. Zarco cherishes her parents who consistently encouraged her to never give up her educational goals. She always knew she loved math and excelled in it, but wanted to apply her skills in the real world. Taking some engineering courses solidified her interest in pursuing a civil engineering career. After graduating from Reedley College, she wants to obtain a master's degree in civil engineering and in the meantime, work as an intern in the field.

Sandra Zúñiga
Reinhardt College; Waleska, Georgia
Mathematics

A passion for tutoring math leads to a career in secondary math education. Sandra Zúñiga, 21, is entering her junior year at Reinhardt College with a 4.0 grade point average in her mathematics major. Her teachers describe her as a motivated, committed and reflective student who enjoys learning new ideas and cares for others. Zúñiga has worked as the secretary of her school's chapter of Family Career and Community Leaders of America, student math teacher in the Gilmer County School System and youth pastor at Iglesia Cristiana Monte de Sion. She also participated in her school's soccer team and Math Honor Society and the National and Junior Beta Clubs and Interact Club, where she served her community helping foster children and nursing home residents. Zúñiga thanks her mother and older sister for supporting her education; her sister helped her learn to read, write and add and subtract before she entered kindergarten. Once Zúñiga recognized her talents in math, she decided she wanted to help students who struggle with it. In addition to earning her bachelor's in math, she plans on majoring in education to obtain a secondary math education degree and certification. In the future, Zúñiga hopes to continue her education in math to solve problems beyond the classroom.