San José
State University

RESEARCH FOUNDATION

ANNUAL REPORT 2010–2011

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Cover image:
Broom vendor in Herat, Afghanistan

From the Provost

The year 2011 brought significant changes to San José State University, most notably the arrival of our dynamic president, Mohammed Qayoumi, followed by my own arrival as Provost and Vice President for Academic Affairs. Already, the campus has completed a comprehensive strategic planning effort that underscores the centrality of research to the University's mission and the significant benefit to student academic success. SJSU's research activities engage undergraduate as well as graduate students, inspiring innovation and creative thought while providing essential real-world experience.

In this report we share a sample of the impressive, ground-breaking work being conducted at SJSU. The impact of these activities extends worldwide and beyond—literally—with distinguished achievements in safety and air transportation systems; journalism and freedom of speech in the Middle East; award winning film production; space exploration and the thrilling discovery of new planets; and the science and public policy implications of cybersecurity technology.

Although this publication covers research activity from 2010-2011, we took the liberty of including a more recent accomplishment by one of our faculty. In February 2012, Dr. Kevin Jordan and his exceptional research team successfully competed for a $73.3 million dollar cooperative agreement with NASA, receiving the largest award in the history of the entire California State University system.

Needless to say, my first months as Provost have been exciting, inspiring and rewarding. I am delighted and proud to have become a member of this world-class community of researchers and scholars at San José State University.

Ellen Junn
Provost and Vice President for Academic Affairs

From the Chief Operating Officer

It is my privilege and pleasure to present to you the San José State University Research Foundation's 2011 Annual Report. In this publication you will find compelling examples of the extraordinary talent and remarkable—indeed historic—accomplishments of SJSU faculty and their research teams.

Highlighted projects provide a glimpse into the breadth and depth of capabilities and interests of our distinguished San José State University faculty. The comprehensive project list reflects the hundreds of government and private agencies, as well as Silicon Valley technology companies and other organizations, that engage SJSU faculty, students, and other university specialists in the pursuit of new knowledge and innovative solutions to a wide range of scientific, business, social and policy issues.

Over the past five years, SJSU sponsored programs funding has totaled $265 million, and the San José State University research enterprise continues to grow. Particularly given the severity of budget challenges faced by the California State University system, the Research Foundation is more committed than ever to working on behalf of San José State to increase research funding. At the same time, we are also increasing efforts to provide responsive, comprehensive, yet cost-effective support services and infrastructure necessary to execute on the nearly 500 individually competed and funded projects conducted under the direction of SJSU faculty.

We are excited about the accomplishments of our programs and the bright future that lies ahead for these important research efforts impacting our region, our nation and our world.

Mary Sidney
Chief Operating Officer

SJSU AND NASA

An historic collaboration to transform air and space travel

The Federal Aviation Administration's ambitious goal: fly smarter, safer and greener by 2025. The satellite-based Next Generation Air Transportation System aims to increase the capacity of our national airspace, improve the safety of air travel and minimize the environmental impact of air transportation through a major overhaul of the nation's air traffic control operations.

The enormity of that overhaul means "we're asking all elements of the system—including the humans—to do more," explains Kevin Jordan, professor of psychology. "But you can't just say 'work harder, have another cup of coffee' to air traffic controllers who are already arguably working at capacity. There are issues with vigilance, with stress and with fatigue."

Professor Kevin Jordan
Department of Psychology
College of Social Sciences

"Not many universities anywhere have received a federal award like this. We're now playing in a different league."

—Professor Kevin Jordan

That's where the human factors research being done by Jordan and his students comes in.

As part of a five-year, $73.3 million cooperative agreement with NASA—the largest award SJSU has ever received from the federal government—Jordan's team works collaboratively with NASA Ames scientists to develop software tools that better integrate humans and technology. Among those advancements: automated conflict detection and resolution tools to help air traffic controllers handle more planes in their assigned sector, redesigned workstations, and significant changes to the look and feel of hardware and software interfaces.

"We won't be using knobs and dials much longer," says Jordan.

The cooperative agreement also covers work on the U.S. Space Launch System and design of the Space Shuttle's successor. For reasons of safety, mission assurance and risk mitigation, the launch vehicle, the vehicle that carries the crew and the ground control system "must all be able to talk to each other," Jordan says. "So we're developing software tools that allow for integration of information over multiple platforms and which have the potential to assess whether a mission is ready to launch in days as opposed to months."

Jordan's 27-year association with NASA began with a $170,000 cooperative grant in 1985. Since then, he has authored proposals resulting in more than $125 million in funding to support collaborative research in aerospace human systems integration. Because of those grants, SJSU students have had the opportunity to work in an applied, rigorous research environment. A new initiative will bring four undergraduates from underrepresented groups to work with Jordan this summer.

"Our most recent grant puts SJSU in a place it hasn't been before," Jordan says. "The benefits for students, faculty and the university are enormous."

Presenters at the March 2012 celebration of Dr. Jordan's achievements, held at San José State University, included (from left) Matt Mainini, former student research assistant in Human Factors and Ergonomics, presently employed at Plantronics, Inc.; Mary Sidney, Chief Operating Officer, San José State University Research Foundation; Sheila Bienenfeld, Dean, College of Social Sciences, SJSU; Mo Qayoumi, President, SJSU; Kevin Jordan, Principal Investigator and Professor of Psychology, College of Social Sciences, SJSU; Ellen Junn, Provost and Vice President of Academic Affairs, SJSU; Ephraim P. Smith, Executive Vice Chancellor and Chief Academic Officer, The California State University; Sarah Ligda, former student research assistant in Experimental Psychology, now working on the cooperative agreement in the Flight Deck Display Research Laboratory at NASA Ames; Matt Guibert, Interaction Designer at NASA Ames Research Center; Vernol Battiste, Lead Investigator, Flight Deck Display Research Lab at NASA Ames Research Center; Danielle T. Duong, Aide to Congressman Mike Honda, who presented Dr. Jordan with a Congressional Commendation during the event.

The power of the press

Bringing modern journalism to Afghanistan

"Nowhere is freedom of speech and freedom of the press needed more than in Afghanistan," declares Professor Diane Guerrazzi. "We saw an opportunity to do something truly meaningful there."

The Herat Journalism Project, underwritten by a $1.2 million grant from the U.S. Department of State, involves three initiatives: helping the faculty of Herat University in western Afghanistan obtain a certificate of advanced education in journalism; retrofitting Herat's curriculum; and arranging for student internships.

Making a success of the three-year project, funded until November 2013, has required linguistic, cultural and operational flexibility—as well as good old-fashioned ingenuity. Among other challenges, Guerrazzi's co-director Peter Young has negotiated passport snafus and improvised a solution that saved the project's Afghanistan-based administrator from paying for Internet access out of pocket. When Young and Guerrazzi encounter two ways of doing business, American and Afghan, Young says: "We consider all of the factors and find an equitable solution to the problem at hand."

"We make it work," adds Guerrazzi.

Herat's previous curriculum, devised by Iranian religious leaders in the late 1970s, "had a heavy conservative Islamic layer to it and involved very little technology," Young explains. An upgrade was essential.

Meeting with Herat faculty on her first trip to Afghanistan, Guerrazzi shared SJSU's journalism curriculum.

"But I didn't say: 'You must do this,'" she clarifies. "We didn't dictate. I suggested a plan and asked: 'What do you think?'"

Together Guerrazzi and the Herat faculty revised the materials to suit Afghan culture. The materials were also translated into Dari, a dialect of Farsi. The Afghan Ministry of Higher Education swiftly approved the changes and new curricula in journalism and public relations became part of Herat's programs by March 1, 2011.

At left, Professors Diane Guerrazzi and Peter Young. Above, a professor lectures in a journalism class at Herat University.

"We have established a great working relationship with our colleagues, a very positive environment," Guerrazzi says. "That has been a critical part of our success."

Herat undergraduates now have the opportunity to acquire hands-on training as journalists through the new internship program. Five students have already completed internships at Asia TV and Maihan TV; another seven students started internships in November 2011.

"The students are excited, and the faculty and department chair are very pleased with what they didn't initially understand: the tremendous value of internships in preparing students to be working journalists," Young says.

A second grant from the U.S. Department of State, also co-directed by Guerrazzi and Young, will support a similar partnership between San José State and Balkh University in northern Afghanistan through February 2015.

"Nowhere is freedom of speech and freedom of the press needed more than in Afghanistan. We saw a real need for the Herat Journalism Project and an opportunity to do something truly meaningful."

—Professor Diane Guerrazzi

Clockwise from top left: salesman in a Herat glass store; boy shepherd leads sheep through downtown Herat; boys sell fruit on a Herat street.

From stage to screen: Seducing Charlie Barker

"This project gave me the opportunity to grow as an artist and filmmaker, which enriched and fortified who I am as a teacher."

—Professor Amy Glazer

Amy Glazer, award-winning stage director and SJSU theatre professor, is well known for bringing new plays to Bay Area audiences as artistic director of the Magic Theatre and as San Francisco Playhouse's current associate artistic director. With the release of *Seducing Charlie Barker*, her third stage-to-screen adaptation, she is also becoming a force to be reckoned with in the world of independent films.

Transforming Theresa Rebeck's satirical play about an out-of-work actor into a film festival darling, *Seducing Charlie Barker* has been a three-year labor for Glazer.

"The fun part of making a film is getting it in the can," Glazer says. "But I learned with my second film, *Drifting Elegant*, that I also needed to control how the film was marketed and distributed."

With a $95,000 post-production grant from San Francisco's Maurice Kanbar Foundation, Glazer set about editing, color correcting, and adding credits to *Seducing Charlie Barker*. Each of those experiences was "the equivalent of a master class for me," Glazer admits. She enlisted jazz musician Bruce Fowler to write the score (a tango) and arranged for pre-release screenings in San Francisco, San José, and Oakland. She re-shot; she re-edited. She entered the film into U.S. and European independent film festivals and traveled to each of those festivals, taking SJSU film students along with her.

Although attached to Rebeck's original title (*The Scene*), Glazer realized the film needed a different title.

Professor Glazer coaches her students in the art of filmmaking, story telling, directing and acting, as well as educating them on the ins and outs of the film industry.

"*Seducing Charlie Barker* works on so many levels," she says. "The main character is literally seduced by a young woman, Clea. He's also seduced by the entertainment industry—by fame, money, celebrity and a culture that often values meaninglessness over meaning. We felt the new title supported the story. And, at the end of the day, what good is a film that no one goes to see?"

Thus far, *Seducing Charlie Barker* has won 14 awards, including Best Indie Film award at the Ft. Lauderdale International Film Festival, the Big Apple Film Festival's NYC Cityscape Award, and the Grand Prize at Canada's International Film Festival. It also made the official selection cut at the San Francisco International Film Festival and at Cannes. The awards helped secure international and domestic distributors, and in December the film was theatrically released to critical acclaim in California and New York.

"I now know what it takes to finish a film and get it to an audience," Glazer says, "and that is knowledge that I bring to every film class I teach."

New planets, new worlds

NASA's Kepler Mission

Launched in March 2009 on a Delta II rocket, the Kepler satellite locates Earth-sized planets in our galaxy by detecting changes in the brightness of stars between the Cygnus and Lyra constellations. Physics and Astronomy Professor Natalie Batalha, who is Science Team Lead for the Kepler Mission, selects which of the more than 150,000 stars the spacecraft will monitor in that particular section of sky above the Milky Way. She is also the team member who most often speaks to the press.

Professor Natalie Batalha, co-investigator of NASA's Kepler Mission.

This chart compares the first Earth-size planets found around a sun-like star to planets in our own solar system, Earth and Venus. NASA's Kepler mission discovered these newfound planets, called Kepler-20e and Kepler-20f.

In 2011, there was much to report.

In January, NASA announced the discovery of the smallest planet yet found outside our solar system: Kepler-10b. A small, rocky exoplanet, Kepler-10b is 560 light years from Earth, approximately eight billion years old and registers daytime temperatures in excess of 2,500 degrees Fahrenheit.

"It's a scorcher," Batalha says.

In February 2011, NASA announced the discovery of Kepler-11, a star system with six orbiting planets. The following September, another breakthrough: the discovery of Kepler-16b, a planet orbiting two stars. An extremely cold planet with surface temperatures of minus 150 degrees Fahrenheit, Kepler 16-b's science fiction equivalent is Luke Skywalker's home planet in *Star Wars*. The imaginary Tatooine also has two suns in its sky.

"Lucas Films allowed us to use clips from the movie in order to draw parallels between the science and the fiction," Batalha says. "That was cool."

Although Batalha intended to major in business at UC Berkeley, a single freshman physics course changed the direction of her studies and career.

"If I hadn't been able to experience the scientific method as an undergraduate student, I wouldn't be a scientist today," she says.

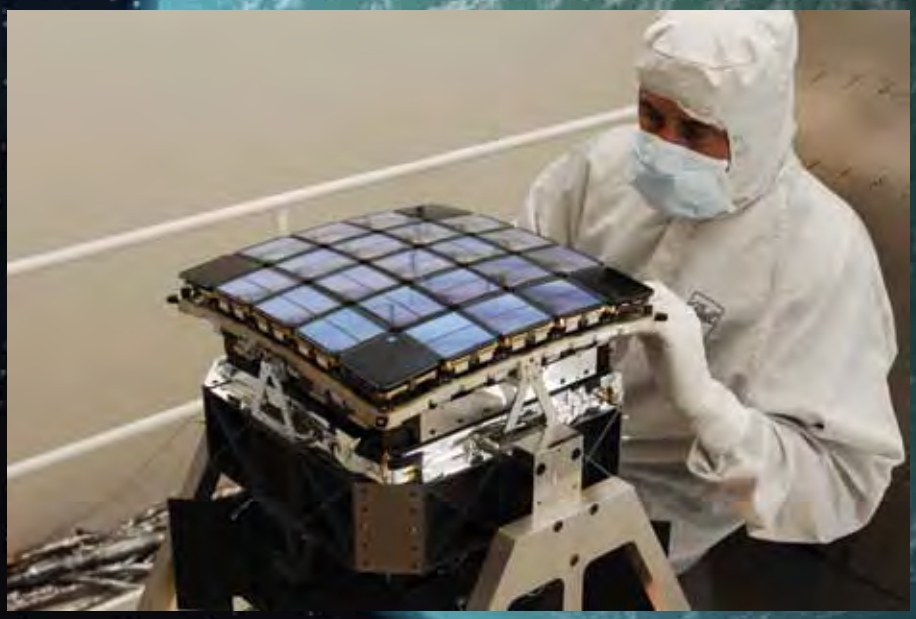
Batalha's involvement with NASA ensures that her own students at SJSU have access to research projects and gain similar scientific training. "The value of those advantages cannot be overstated," Batalha says. After completing their degrees, two of her recent graduate students were offered positions as operation engineers at the Kepler Science Operation Center.

Before joining the Kepler team in 1997, Batalha worked at Lick Observatory in San José on the Vulcan robotic telescope project, a testbed for the Kepler Mission.

"I could not have chosen a career that didn't have meaning to me, and the Kepler mission is about as meaningful as it gets," she says. "We're looking for new worlds in our galaxy, potentially habitable planets. More than that, we're trying to figure out, when we look up into the sky, whether we're alone."

"My experiences with the Kepler Mission have changed my perspective—not just about the science itself, but in more subtle ways that have to do with policy, politics and our humanity."

—Professor Natalie Batalha



The Kepler focal plane is approximately one foot square. It's composed of 25 individually mounted modules. Each module and its electronics convert light into digital numbers that are analyzed for planet transits. Credit: NASA/Kepler mission

This artist's conception illustrates Kepler-22b, a planet known to comfortably circle in the habitable zone of a sun-like star. Image credit: NASA/Ames/JPL-Caltech

The science of security

CREATING **TRUST**WORTHY INFORMATION SYSTEMS

Since September 11, 2001, the security of our country and its citizens has been a hot button issue, debated in the context of war and criminal acts. The Team for Research in Ubiquitous Secure Technology (TRUST), a National Science Foundation Science and Technology Center, aims to broaden the discourse beyond technology and persuade policymakers to use a different model for thinking about, and dealing with, security issues.

"Security should be viewed like healthcare," says TRUST co-director and SJSU Professor Sigurd Meldal. "Just as people will always be sick, there will always be security issues. We need security policies in place that work to diminish the contagion."

TRUST is a distributed science center composed of six universities—Stanford, Cornell, Vanderbilt, Carnegie Mellon, UC Berkeley and San José State—and houses a cross-disciplinary team of computer scientists, computer engineers, law and policy researchers.

Xiao Su and **Sigurd Meldal** investigate the science, privacy and policy implications of cyber security.

"We want to influence not only technology developments in cyber security in the U.S., we want to influence how privacy and security issues are dealt with legally and at the regulatory level," says Meldal. Working with Meldal on TRUST initiatives are SJSU faculty members Xiao Su, Mark Stamp, and Timothy Hill.

Educational and outreach components include summer programs for undergraduate and graduate students. The National Science Foundation's Research Experiences for Undergraduates (REU) program pairs undergraduates from across the country with TRUST faculty mentors. Graduate students in the SECuR-IT summer program intern at Sun Microsystems, PayPal, eBay and other leading Silicon Valley technology companies. In order to share TRUST research results with the larger educational community, a symposium (CDSIA—Curriculum Development in Security and Information Assurance) is held annually on SJSU's campus. In 2011, 60 participants from 29 universities attended.

"We're building a community for an effective transitioning of knowledge and making sure that security and privacy issues become part of the standard curriculum," Meldal says.

As a result of the Center's programs, politicians, legislators and educators now talk about the "science of security"—a science whose theories can be tested, and are being tested by the TRUST in the areas of finance, health and physical infrastructures. For example, Intel built its new Science and Technology Center influenced by TRUST research directions. TRUST advisors consulted on an upcoming Health and Human Services (HHS) initiative. The U.S. Air Force used TRUST research to improve their security systems. Members of the TRUST team regularly brief the White House, the Department of Commerce and Homeland Security on research developments.

"There's a wonderful synergy coming out of all this," says Meldal. "We've taken the alchemy out of security and established it as a science."

Faculty Awards 2010–2011

College of Applied Sciences and Arts

Total: $6,825,827

Dean's Office

Charles Bullock
Maureen Lowell
Institute for Collaborative Response to Victims of Domestic Violence
U.S. Department of Justice
$440,000

Barbara Conry
Stanford Geriatric Education Center
Stanford University
$20,000

Administration of Justice Bureau

Jackye McClure
CPOST-Command College Workshops 2009-2010
Commission on Peace Officer Standards
$6,000

Health Science

Kathleen Roe
Campeonas 2 - Assets & Capacity Building
Kaiser Permanente
$15,000

Journalism and Mass Communications

Diane Guerrazzi
Peter Young
Professional Collaboration & Enhancement of Journalism Department, Herat University
U.S. Department of State
$1,080,663

Thomas Ulrich
Shift Magazine
Silicon Valley Community Foundation
$500

Justice Studies

Mark Correia
Subject Training Services 2010-2011
Commission on Peace Officer Standards and Training
$45,000

Command College Workshops 2010-2011
Commission on Peace Officer Standards and Training
$516,414

Executive Development Courses 2010-2011
Commission on Peace Officer Standards and Training
$281,976

Executive Seminars 2010-2011
Commission on Peace Officer Standards and Training
$80,329

Institute of Criminal Investigation Training Courses 2010-2011
Commission on Peace Officer Standards and Training
$357,229

Management Training Courses 2010-2011
Commission on Peace Officer Standards and Training
$232,959

Kinesiology

James Kao
Bay Area Physical Education-Health Project
The Regents of the University of California
$40,000

Nancy Megginson
Paralympics Veterans Program at the Timpany Center
United States Olympic Committee
$17,940

Susan Wilkinson
California Physical Education-Health Project 2009-2011 Statewide Office
The Regents of the University of California
$250,000

Project NorthReach
The Regents of the University of California
$40,000

School of Library and Information Science

Anthony Bernier
Making Space for Young Adults in Public Libraries
Institute of Museum and Library Services
$335,156

Jane Fisher
Circle of Learning: Preparing American Indian Librarians for Tomorrow
Institute of Museum and Library Services
$842,532

Lili Luo
Engaging a New Generation of Library Users: Exploring a Multi-Library Collaborative Model to Deliver Text Reference Service
Institute of Museum and Library Services
$122,683

School of Nursing

Karen Bawel-Brinkley
Colleen O'Leary-Kelley
South Bay RN Transition Program
Workforce Institute
$28,575

Daryl Canham
Advanced Education Nursing Traineeships, 2011-2012
U.S. Department of Health and Human Services
$22,530

Jayne Cohen
The Health Place
Town of Los Gatos
$16,220

Nutrition, Food Science and Packaging

Lucy McProud
Cal-Pro-Net Center 2010-2011
California Department of Education
$147,683

School of Social Work

Amy D'Andrade
Understanding Models of Child Welfare Reunification Services Delivery in California Counties
UC Berkeley
$66,418

Laurie Drabble
Sexual Orientation and Correlates of Alcohol Problems
Alcohol Research Group
$73,055

Laurie Drabble
Kathy Lemon-Osterling
Santa Cruz Regional Partnership Grantee Program
Center for Children and Family Futures
$10,000

Meekyung Han
Sadhna Diwan
Design and Implement Evaluation Plans for 3 Mental Health Services Act (MHSA) Innovation (INN) Projects
Santa Clara County
$281,230

Alice Hines
Title IV-E Child Welfare Training Program 2010-2011
The Regents of the University of California
$1,455,735

College of Business

Total: $3,392,006

Dean's Office

David M. Steele
Rod Diridon
Mineta Transportation Institute
U.S. Department of Transportation
$925,700

Mineta Transportation Institute
California Department of Transportation
$925,700

NTSCOE - National Transportation Security Center of Excellence
U.S. Department of Homeland Security
$905,000

Practices in Wayside Rail Track/Transit Worker Safety Protection
The National Academy of Sciences
$42,000

Frances Edwards
2011 Caltrans COOP COG Training Project
California Department of Transportation
$147,289

Peter Haas
Summer Training Institute 2010-2012
California Department of Transportation
$109,502

Organization and Management

Camille Johnson
Directed Comparisons: Social Comparisons as Social Influence
National Science Foundation
$69,173

Taeho Park
Ming Zhou
Development of a Technology Valuation Model
Korea Institute of Science and Technology
$40,000

Joel West
Meghna Virick
James Mokri
SolarTech Workforce Innovation Collaborative
SolarTech
$227,642

RESEARCH BRIEF

Project Director:
Camille Johnson
Associate Professor, Organizational Management
College of Business

Project: Directed Comparisons: Social Comparisons as Social Influence

Partner: National Science Foundation

Objective: Evaluate social comparisons and performance and examine the behavior consequences of comparing oneself to more successful others.

Funding: $69,173

Conne L. Lurie College of Education

Total: $4,414,940

Dean's Office

Elaine Chin
Upward Bound Classic
U.S. Department of Education
$546,168

Talent Search Program
U.S. Department of Education
$226,600

Child and Adolescent Development

Kathryn Lindholm-Leary
Korean FLAP Project
Glendale Unified School District
$9,000

Communicative Disorders and Sciences

Gloria Weddington
Combined Priority for Personnel Development
UC Santa Cruz
$300,000

Project Arco Iris
U.S. Department of Education
$200,000

Counselor Education

Andrew Hughey
Xiaolu Hu
Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP): Community Achievement Project
U.S. Department of Education
$2,404,800

Elementary Education

Bill Hanna
East San José Teaching American History (ESJTAH) 2010-2011
Berryessa Union Elementary School District
$118,002

East San José Teaching American History (ESJTAH) 2011-2012
Berryessa Union Elementary School District
$134,832

Nancy Markowitz
Ruth Beauchamp
SJSU Multiple Subject Intern Project and Regional Intern Facilitator Grant
Berryessa Union Elementary School District
$305,154

Rosalinda Quintanar
California Binational Teacher Education Project (B-TEP)
University Enterprises Inc., Sacramento State
$14,353

David Whitenack
Effective Science Teaching for English Language Learners (ESTELL) Project
UC Santa Cruz
$56,031

Special Education

Christine Hagie
Restructuring Preservice Personnel Preparation for HQT to Serve High Incidence Disabilities
U.S. Department of Education
$100,000

Charles W. Davidson College of Engineering

Total: $2,428,338

Dean's Office

Emily Allen
Evelyn Crosby
MESA Statewide Support 06
The Regents of the University of California
$11,500

Emily Allen
Linda Ortega
MESA NSF S-STEM Scholarship (85)
The Regents of the University of California
$19,500

Thalia Anagnos
Emily Allen
S-STEM: Engineering Leadership Pathway Scholarship Program
National Science Foundation
$599,745

Thalia Anagnos
Purdue University NEES Operations: FY 2010-2014
Purdue University
$80,638

NEESR-GC Mitigation of Collapse Risk in Vulnerable Buildings
UC Berkeley
$47,610

Aviation and Technology

Seebany Datta-Barua
Ionospheric Storm Transition Region Properties
National Science Foundation
$80,001

Wenbin Wei
Integrate Human Performance Model into Large-Scale National Airspace System Simulation: Architecture Definition
Engility Corporation
$88,000

Biomedical, Chemical and Materials Engineering

Gregory Young
Cellulose Digestion Reactor and Reaction Characterization
Applied Chemical Laboratories
$7,765

Civil and Environmental Engineering

Juneseok Lee
Residential Water Demand Analysis Due to Water Meter Installation
California Water Service Company
$100,000

Kurt McMullin
Partnership for Student Success in Science (PS3)
National Science Foundation
$500,000

Composite Column Testing Project
Space Systems/Loral
$2,500

NEESR-SG: Experimental Determination of Performance of Drift-Sensitive Nonstructural Systems Under Seismic Loading
National Science Foundation
$11,300

Jae-Ho Pyeon
Effectiveness Study on Temporary Pavement Marking Removal Methods
University of Nebraska-Lincoln
$4,036

Computer Engineering

Sigurd Meldal
Team for Research in Ubiquitous Secure Technology (TRUST): An NSF Science and Technology Center
UC Berkeley
$105,000

Sigurd Meldal
Dan Harkey
QA Internships
RingCube Technologies, Inc.
$351,040

Haluk Ozemek
Technical Services for IBM
International Business Machines
$66,700

Leonard Wesley
Cross Loop SJSU Internship Project
Cross Loop
$6,266

Electrical Engineering

Chang Choo
Study of Acoustic Echo Canceller for HD-VoIP
Electronics and Telecommunications Research Institute
$75,000

Essam Marouf
Investigation of Saturn's Rings by Cassini Radio Occultation: Cassini Equinox Mission to Saturn
Jet Propulsion Laboratory
$196,969

Travel for Rosetta and Radio Science Meeting
Jet Propulsion Laboratory
$2,000

Peter Reischl
Ping Hsu
A Nationwide Consortium of Universities to Revitalize Electric Power Engineering Education by State of the Art Labs
University of Minnesota
$8,333

Industrial and Systems Engineering

Paul Lee
System Analysis, Integration, and Evaluation of Next-Gen Concepts and Technology
Sensis Corporation
$14,435

Mechanical and Aerospace Engineering

Tai-Ran Hsu
Eugene Cordero
Craig Clements
Wind Power Generation on High Rise Buildings in Urban Centers
San Diego State University Research Foundation
$50,000

College of Humanities and the Arts

Total: $718,061

Design

John Loomis
Curatorial Planning for the SJSU School of Art & Design Centennial Exhibit
City of San José
$5,750

Leslie Speer
John McClusky
Solar Powered Urban Structure
City of San José
$60,000

English and Comparative Literature

Andrew Altschul
Center for Literary Arts Program Support 2010-2011
Arts Council Silicon Valley
$3,205

Andrew Altschul
Center for Literary Arts Program Support 2010-11
City of San José
$8,809

Jonathan Lovell
San José Writing Project
UC Berkeley
$35,000

Jonathan Lovell
Mary Warner
San José Area Writing Project NCLB7 Funds 2010-2011
UC Berkeley
$43,482

San José Area Writing Project CSMP 2009-2010
UC Berkeley
$27,000

Susan Shillinglaw
John Steinbeck: Voice of a Region, Voice of America: A Summer Institute Exploring the Author's Life and Writing
National Endowment for the Humanities
$164,815

Linguistics and Language Development

Hahn Koo
Development of the Multi-Lingual Grapheme-To-Phoneme Conversion and Part-Of-Speech Tagging Modules
Electronics and Telecommunications Research Institute
$100,000

Television-Radio-Film-Theatre-Animation/ Illustration

Amy Glazer
Guest Artist Series
The Kanbar Charitable Trust
$10,000

Amy Glazer
Post Production of The Scene
The Kanbar Charitable Trust
$15,000

World Languages and Literatures

Dominique Van Hooff
Fayeq Oweis
Strategic Language Initiative - Arabic SJSU
CSU, Long Beach Foundation
$245,000

Moss Landing Marine Laboratories

Total: $15,961,832

Ivano W. Aiello
Collaborative Research: Expedition 323 Objective Research on the Paleoceanography of the Bering Sea
National Science Foundation
$60,988

RMP-Grain Size Analysis
San Francisco Estuary Institute
$1,186

Ivano W. Aiello
Sam Hulme
Collaborative Research: The Basalt-Hosted Biosphere at North Pond, A Subseafloor Mid-Atlantic Ridge-Flank Microbial Observatory
National Science Foundation
$271,304

Trace Elements Analysis of Borehole Fluids and Pore Waters Collected on IODP Expedition Juan De Fuca Ridge
Ocean Leadership Consortium
$12,000

Simona Bartl
Incorporation of Marine Research and Resources Issues into Public Education
U.S. Department of Commerce
$59,880

K-2 STARTS
San Joaquin County Office of Education
$24,289

Laurence C. Breaker
Gregor M. Cailliet
Paradigm or Paradox: Can We Attribute Species Changes to Global Climate Change in Light of Decreasing Water Temperatures in Central California?
The Regents of the University of California
$34,799

EARLY CAREER INVESTIGATOR AWARD WINNERS 2010 & 2011

The SJSU Research Foundation Early Career Investigator Award recognizes tenure-track SJSU faculty who have excelled in areas of research, scholarship or creative activity as evidenced by their success in securing funds for their research, peer-reviewed publications and other scholarly and creative activities at an early or beginning point in their career at SJSU. Our recipients are exceptional examples of individuals who have achieved this level of success.

2010

Craig Clements
Department of Meteorology and Climate Science
College of Science

Dr. Craig Clements has been tremendously successful and productive in his field of fire weather research. His accomplishments are embodied in multiple grant awards totaling more than $800,000, publications in top journals in his field, and successful efforts to secure funding for students to conduct their own research. In 2010 Dr. Clements was awarded the prestigious and competitive National Science Foundation (NSF) Major Research Instrumentation grant. Most recently, he received a $900,000 Career Grant from the National Science Foundation. Dr. Clements has been PI or co-PI on 18 proposals since he started at SJSU, several of which have arisen from his outreach to organizations such as CAL Fire, NASA, PG&E and the National Park Service. His work in fire weather research is bringing prominence to SJSU.

Amy D'Andrade
School of Social Work
College of Applied Sciences and Arts

Dr. Amy D'Andrade has received multiple external grants for her research work, which is focused on child welfare services. Her funders include UC Berkeley, the Santa Cruz County Human Services Department and the California Social Work Education Center. Although her focus is on applied research, her work has implications for the child welfare field as a whole as evidenced by her strong publication record. She has had nine articles published in peer-reviewed journals, three of which appeared in publications ranked in the top ten journals in her field. She has had two book chapters published and presents at peer-reviewed research conferences, while dissemination of her work in professional and community venues has been even broader. Dr. D'Andrade's scholarship has greatly enhanced the research infrastructure, capacity and recognition of SJSU.

2011

Marjorie Freedman
Department of Nutrition, Food Science & Packaging
College of Applied Sciences and Arts

Dr. Marjorie Freedman examines the environmental correlates of food choices, obesity, nutrition labeling, portion sizes, community nutrition and nutrition education. With obesity being the most significant public health issue of our time, Dr. Freedman's research provides critical data to inform public policy development at the national level. She also works actively in the local public policy arena, and successfully advocated for healthy vending machine policies in the city of San José and in its libraries. Her dedicated scholarship has resulted in multiple external grants, which helped create and expand the "Healthy San José State" initiative. Dr. Freedman regularly engages her students and those from other departments (including Business, Environmental Studies and Art) in her research. Her work makes a notable contribution to the research effort, impact and reputation of SJSU.

Ivano Aiello
Moss Landing Marine Laboratories
College of Science

Dr. Ivano Aiello has been tremendously productive in his field of geological oceanography. In addition to an impressive record of grantsmanship, Dr. Aiello has transformed and energized the Geological Oceanography program at MLML, developing new courses, attracting new students and engaging other faculty in multidisciplinary studies. He has made key contributions toward developing grants for the acquisition of equipment that supports the research needs of many at MLML. Dr. Aiello regularly receives the highest rankings from students with his engaging and energetic style of teaching. His capabilities have been recognized by program managers at Ocean Leadership who awarded him special funding to deliver talks about the U.S. Deep Sea Drilling Program at universities across the country, thus making him the national spokesman for the program and bringing prestige to SJSU.

Ross Clark
Kevin O'Connor
Field Sampling
Southern California Coastal Water Research Project
$65,000

Wetlands Protection Development
San José State University
$350,000

Kenneth Coale
Wesley Heim
Development of Best Management Practices to Reduce Methyl Mercury Exports and Concentrations from Seasonal Wetlands
California Department of Fish and Game
$1,166,491

Kenneth Coale
Erika McPhee Shaw
CENCOOS: Long-Term Monitoring of Environmental Conditions in Support of Protected Marine Area Management
Monterey Bay Aquarium Research Institute
$75,000

Kenneth Coale
Mark Stephenson
SFEI 859: RMP Zone 4 Line a Small Tributaries Loadings Study - Year 4
San Francisco Estuary Institute
$21,165

SFEI 885: RMP Fish Sample Analysis
San Francisco Estuary Institute
$112,362

SFEI 891: RMP Sample Analysis for Pyrethroids
San Francisco Estuary Institute
$11,691

Supply and Analysis RMP Watersheds 2010-2011
San Francisco Estuary Institute
$22,508

Kenneth Coale
Water Sample Analysis
Ducks Unlimited
$9,926

David Ebert
Trophic Ecology of the Gopher Rockfish (Sebastes Carnatus): Providing Baseline Information for Monitoring and Evaluation
The Regents of the University of California
$34,799

Russell Fairey
Surface Water Ambient Monitoring Program (SWAMP)
California State Water Resources Control Board
$8,586,251

Russell Fairey
Kenneth Coale
CEDEN Project
Southern California Coastal Water Research Project
$543,812

Jonathan Geller
Quantitative Survey of Nonindigenous Species (NIS) in Prince William Sound Next-Gen Sequencing
Smithsonian Institution
$58,913

Michael Graham
TR-ST-Seaweed Strain Selection and Preservation to Optimize Harvest Yields for Abalone Culture
The Regents of the University of California
$1,650

H. Gary Greene
California Sea Floor Mapping Program
State of California
$100,000

Center for Habitat Studies
Dickenson Foundation
$109,000

Scott Hamilton
California Sheephead Fisheries Management Meeting
The Regents of the University of California
$1,729

James Harvey
USGS: Water Quality Monitoring and Coastal Marine Bird Restoration and Management
U.S. Department of Interior
$191,626

Developing a Better Method of Tag Attachment for Cetaceans
U.S. Department of Defense (Office of Naval Research)
$23,216

Health Parameters, Distribution and Behavior of Grebes and Scoters in California Waters
The Regents of the University of California
$47,947

Prescott Grant: 2010-2013 - Enhancing the Response to Marine Mammal Strandings by MLML in Central California
U.S. Department of Commerce
$99,960

Wave Energy Gray Whale Study
URS Corporation
$46,335

James Harvey
Kenneth Coale
Student Research and Travel
David and Lucile Packard Foundation
$50,000

James Harvey
Josh Adams
Erika McPhee Shaw
TR-ST-Connectivity of West Coast Marine Sanctuaries: Tracking Sooty Shearwaters Throughout Dynamic Upwelling Ecosystem
The Regents of the University of California
$1,650

Stacy Kim
Collaborative: Benthic-Pelagic Coupling in an Intact Ecosystem: The Role of Top Predators in McMurdo Sound
National Science Foundation
$403,028

Stewart Lamerdin
Kenneth Coale
Marine Tech Agreement for U.S. Army Corps of Engineers
U.S. Army Corps of Engineers
$12,870

Oceanographic Technical Services
National Science Foundation
$199,089

Research Vessel Agreement for U.S. Army Corps of Engineers
U.S. Army Corps of Engineers
$90,090

Research Vessel Rental by NPS Department
U.S. Department of Defense (Naval Postgraduate School)
$78,000

Ship Operations
National Science Foundation
$1,426,301

Shipboard Scientific Support Equipment
National Science Foundation
$64,840

Valerie Loeb
Krill Processing - AMLR 2010 Cruise
U.S. Department of Commerce
$15,000

Erika McPhee Shaw
Collaborative Research: Benthic Exchange Events and Near-Boundary Mixing on the Continental Shelf
National Science Foundation
$489,328

Supplemental Funding for Collaborative Research: The Role of Canyons in Boundary Mixing and Exchange with the Ocean Interior
National Science Foundation
$25,446

Diana Steller
Ivano W. Aiello
Reefs that Rock and Roll: Critical Assessment of Rhodolith Bed Habitat at Catalina Island to Inform the California South
The Regents of the University of California
$34,800

Mark Stephenson
Kenneth Coale
Liberty Island Water Quality Monitoring
Wildlands, Inc.
$84,907

Time Maximum Daily Loads - Chris Foe 2008
California State Water Resources Control Board
$79,000

Nick Welschmeyer
Development of Rapid, Bulk Assay for Determination of Plankton Viability
California Lands Commission
$141,000

Golden Bear Facility - Ballast Water Treatment Science Team Support and Consulting Services Related to Phase 2
California Maritime Academy
$119,000

Mark Yarbrough
Marine Optical Buoy Time-Series Uncertainty Reduction and System Enhancements for Improved Vicarious Calibration Across Multiple Ocean Color Satellite Missions
U.S. Department of Commerce
$311,656

MOBY Hardware Refurbishment
University of Miami
$192,000

College of Science

Total: $6,472,935

Dean's Office

Herbert Silber
*MARC U*STAR at SJSU*
U.S. Department of Health and Human Services
$548,357

SJSU MESA Schools Program ARUESD Agreement
Alum Rock Union Elementary School District
$8,750

SJSU MESA Schools Program ESUHSD Agreement
East Side Union High School District
$7,500

SJSU MESA Schools Program ESUHSD Agreement
East Side Union High School District
$7,500

SJSU MESA Schools Program Franklin McKinley School District
Franklin McKinley School District
$4,000

SJSU MESA Schools Program SJUSD Agreement
San Jose Unified School District
$4,000

RESEARCH BRIEF

Project Director:
Dorion Liston
Research Associate at NASA Ames Research Center

College of Science

Project: Robust Human-System Interface Design for Spaceflight Induced Environments

Partner: National Space Biomedical Research Institute

Objective: Evaluate human performance and how it is compromised during ascent in a spacecraft, specifically, examining eye movement to determine state of mind.

Funding: $125,515

Dan Walker
Maureen Scharberg
STEP at SJSU: Improving Retention Through Student Learning Communities
National Science Foundation
$809,083

Biological Sciences

Joshua Mackie
Leslee Parr
RUI: Colonization Genetics of Globally Invasive Marine Bryozoa: Does Adaptation Prior or Post Introduction Determine Spread?
Humboldt State University
$69,313

Cleber Ouverney
Environmental Uncultivable Bacteria Model for Understanding Human Periodontitis
U.S. Department of Health and Human Services
$110,039

Nishanta Rajakaruna
Collaborative Proposal: Harnessing the Power of Herbaria to Understand the Changing Flora of California
UC Berkeley
$26,797

Julio Soto
Collaborative Research: Evaluation of Biology REU Site Programs
National Science Foundation
$29,836

Julio Soto
Cleber Ouverney
Miri Van Hoven
REU: Research by Undergraduates Using Molecular Biology Applications (RUMBA)
National Science Foundation
$2,500

Miri Van Hoven
Molecular Mechanisms of Neural Circuit Formation
U.S. Department of Health and Human Services
$92,889

Joseph Brandon White
RUI: Biochemical Analysis of Mastermind Dependent Activation of Notch Target Genes
National Science Foundation
$143,866

Joseph Brandon White
Expanding CSU Allied Health Programs
California Employment Development Department
$536,876

Stanford - SJSU Postdoctoral Training Program to Enhance URM Teaching
Stanford University
$58,704

Chemistry

Juana Acrivos
Senior Scientist Mentor Program
Camille & Henry Dreyfus Foundation
$20,000

Lionel Cheruzel
RU(II)-Diimine Labeled P450 Mutants for the Selective Hydroxylation of Substrate C-H Bond Using an Innovative Photo-Oxidative Approach
U.S. Department of Health and Human Services
$107,550

Novel P450 Hybrid Enzymes with Artificial Electron Donor Photosensitizer for the Selective Oxidation of Organic Substrates
Research Corporation
$35,000

Marc d'Alarcao
Truncated Inositol Glycans and Cancer
U.S. Department of Health and Human Services
$110,039

Fluorinated Cell Surfaces to Modulate Biological Function
Tufts University
$169,933

Electrochemically Degradable Polymers
DC Polymers
$15,731

Daryl Eggers
A New Interpretation of Solute Effects on Biological Equilibria
U.S. Department of Health and Human Services
$106,475

RUI: Silica-Based Materials with Improved Biocompatibility
National Science Foundation
$160,000

Gilles Muller
Chiroptical Induced CPL-Based Tool as a Probe of Biological Substrates
U.S. Department of Health and Human Services
$106,475

Karen Singmaster
CSU-LSAMP Scholars Program 2008-2011
CSU, Sacramento
$8,000

CSU LSAMP 2008-2012
CSU, Sacramento
$88,000

Karen Singmaster
Herbert Silber
San José State University Undergraduate MBRS RISE Program
U.S. Department of Health and Human Services
$350,271

Annalise Van Wyngarden
Organic Layers on Surfaces
NASA
$29,455

Leon Yengoyan
Synthesis and Characterization of Cobalt Sequestration Resins
Electric Power Research Institute
$285,886

Development of Resin A
Electric Power Research Institute
$10,100

Geology

Ellen Metzger
NASA Lift Off: NASA Learning Inspires Fundamental Transformation by Opening Future Frontiers for High School Science
Alameda County Office of Education
$144,513

Jonathan Miller
Collaborative Research: Deciphering Sierran Magma Sources and Modes Diversification Using Trace Element, O, and Hf Isotopic Analyses of Zircon
National Science Foundation
$52,759

Robert Miller
Jonathan Miller
Collaborative Research: Tectonic Links, Magma Fluxes, and Single Mineral Geochemistry in Plutonic Systems from 5-30 Km
National Science Foundation
$65,420

Mathematics

Joanne Rossi Becker
District Support for Lesson Study
Dirk and Charlene Kabcenell Foundation
$89,200

Mathematics Assessment Collaborative, 2009-2013
UC Berkeley
$521,644

BUSINESS AND ECONOMIC DEVELOPMENT PARTNERSHIPS

The US Market Access Center is a business accelerator that provides students and entrepreneurs around the world access to business development education, mentoring, coaching and financing needed to succeed in a new, integrated global market. The executive leadership team works closely with SJSU's College of Business, assisting in curriculum development and serving as guest lecturers on global entrepreneurship and international business. USMAC clients and collaborators provide real world case studies for San José State University faculty, students and interns. Shown here are USMAC President and Executive Director **Alfredo Coppola** (left), with USMAC Senior Vice President and Director **Chris Burry**.

Joanne Rossi Becker
Cheryl Roddick
Santa Clara Valley Mathematics Project
The Regents of the University of California
$31,200

Santa Clara Valley Mathematics Project (UCLA CA 2009-2010)
The Regents of the University of California
$24,800

Plamen Koev
Theory and Algorithms for Beta Random Matrices: The Random Matrix Method of Ghosts & Shadows
National Science Foundation
$181,503

Ferdinand Rivera
CAREER: Developing a Mathematical Knowledge Base for Teaching and Learning Generalization in Basic Algebra at the Middle-Grade Levels
National Science Foundation
$103,995

Meteorology and Climate Science

Robert Bornstein
Understanding Impacts of Climate Change on Energy Infrastructure in Urbanized Coastal Areas
City College of New York
$51,023

Alison Bridger
Training the Next Generation Weather Forecasters: Creation of an "In the Field" Weather Observation, Analysis & Forecasting
U.S. Department of Commerce
$179,820

Alison Bridger
Martin Leach
SJSU Unidata Equipment Proposal
University Corporation for Atmospheric Research
$6,074

Craig Clements
Experimental Studies of Fire-Atmosphere Interactions and Turbulence During Grass Fires of Different Scales
U.S. Department of Agriculture
$25,000

Mobile Greenhouse Gas Flux Analyzer for Unmanned Aerial Vehicles
Los Gatos Research
$22,000

Menglin Jin
Urban Land Cover and Aerosol Effect on Regional Hydroclimate
University of Georgia
$34,316

Nuclear Science

Herbert Silber
Undergraduate Summer Schools in Nuclear and Radiochemistry
Department of Energy
$110,955

2010-2011 MESA
The Regents of the University of California
$200,000

Physics and Astronomy

Natalie Batalha
Science Support for the Kepler Mission
NASA
$7,000

Systems Teaching Institute (STI) Students Task 64-S
The Regents of the University of California
$41,202

Friedemann Freund
Manipulating the Toughness of Rocks Through Electric Potentials
NASA
$45,000

Friedemann Freund
Robert Dahlgren
Realizing the Potential of Radar Reflectivity Changes for Volcano & Earthquake Monitoring
NASA
$18,468

Alejandro Garcia
Stochastic & Hybrid Models and Algorithms for Fluids Project
Lawrence Berkeley National Laboratories
$109,636

Alejandro Garcia
Peter Beyersdorf
John Clapp
Raquel Coelho
Optics for Animation Artists
National Science Foundation
$152,327

Michael Kaufman
Herschel Space Observatory Project
Jet Propulsion Laboratory
$50,000

Herschel O2 Project
Jet Propulsion Laboratory
$16,821

Stratospheric Observatory for Infrared Astronomy
University Space Research Association
$13,000

SJSU STUDENT RESEARCH COMPETITION AWARDEES

For more than 30 years, the SJSU Research Foundation and the SJSU Office of Graduate Studies and Research have collaboratively sponsored the university-wide Student Research Competition. Participants from all academic disciplines have gone on to take top prizes at the California State University system-wide competitions.

2010

Michelle Arden
Linguistics

A Phonetic, Phonological, and Morphosyntactic Analysis of the Mara Language

A linguistic analysis of a rare Tibeto-Burman language based on primary data. The sounds, contrast, and syntax of the language will be presented.

Faculty Mentor:
Dr. Daniel Silverman

Pamela Jamie Clay
Geology

Structure of Jurassic and Cretaceous Plutons, Southwest of Lake Tahoe, California

Investigation of the structural geology of plutons to determine the influence of tectonic strain on pluton construction and emplacement and for evaluating regional deformation history.

Faculty Mentor:
Dr. Robert B. Miller

Khe Dinh
Chemical Engineering

In Vitro Mouth-Throat Deposition for Staccato® Loxapine

Aerosol deposition in the mouth-throat was measured for the drug, Staccato Loxapine. The results show consistent deposition across the range of flow rates 15-80 L/min.

Faculty Mentor:
Dr. Michael Jennings

Meenakshi Goel
Chemistry

Synthesis of a non-hydrolyzable, lipid-linked inositol glycan with potential anti-cancer activity

This work describes the chemical synthesis of a stable analogue of a previously prepared compound that induces cellular aerobic metabolism and therefore has anticancer potential.

Faculty Mentor:
Dr. Marc d'Alarcao

John HyunJoon Kim
Biology/Chemistry

Gel Encapsulation of the Enzyme Bromoperoxidase

Enzyme encapsulation is a technique that traps enzymes within a gel matrix, which allows for the reuse of enzymes. Bromoperoxidase from *Corallina vancouveriensis* was successfully encapsulated using both the silica sol-gel and alginate gel matrixes.

Faculty Mentor:
Dr. Roy Okuda

2011

Darci Arnold
Interdisciplinary Studies

PLANET Building: A Case Study of Corporate Sustainability for a Globalized World

This research highlights the business case and resulting competitive advantage for firms engaged in sustainability initiatives and strategies.

Faculty Mentor:
Dr. William J. Reckmeyer

Marilyn Baker-Venturini
Nutrition

Nutrition Status as a Risk Factor for Falls Among Older Adults

This retrospective study found a significant relationship between nutrition status and falls among community dwelling older adults.

Faculty Mentor:
Dr. Kathryn Sucher

Jessica Eastburn
Art

Brain Drain - Thesis Exhibition

Culminating creative project for the Master of Fine Arts in Pictorial Art and the historical and theoretical context for the work.

Faculty Mentor:
Gale Antokal

Stacy Schwartz
Art History

A Sign of the Times: Contemporary Post-Holocaust Art and Jewish identity

An explanation of how post-Holocaust imagery in contemporary Jewish American art expresses the evolving relationship between younger Jewish generations and the legacy of the Holocaust.

Faculty Mentor:
Dr. Beverly Grindstaff

Yelena Severina
English

The Russian Émigré in America: Translating and Transcending Exile in Vladimir Nabokov's *Pnin* and *Pale Fire*.

An investigation of the theme of exile in Vladimir Nabokov's two English-language novels, his lament over its painfulness, and his transcendence of exile through art.

Faculty Mentor:
Dr. Robert Cullen

Monika Kress
Undergraduate Research at SETI in Astrobiology (URSA)
SETI Institute
$19,334

The Virtual Planetary Laboratory: Exploring the Habitability and Biosignatures of Extrasolar Terrestrial Planets
University of Washington
$43,000

Kiumars Parvin
Micah Johnson
Photonuclear Measurement Tasks
Lawrence Livermore National Lab
$50,000

College of Social Sciences

Total: $15,204,637

Dean's Office

Michael Conniff
Silicon Valley Center for Global Innovation and Immigration (SVCGII)
U.S. Department of Education
$220,000

Michael Conniff
Mark Correia
Needs Assessment Survey of Immigrants in San Mateo County
Silicon Valley Community Foundation
$85,000

Environmental Studies

Katherine Cushing
Understanding the Influence of Stakeholder Groups on the Effectiveness of Urban Recycled Water Program Implementation
Water Reuse Research Foundation
$86,229

Bruce Olszewski
Recycling Telephone Hotline Information
Santa Clara County
$65,000

Lynne Trulio
Llagas Creek Enhancement Project for the City of Morgan Hill
City of Morgan Hill
$44,580

History

Patricia Hill
East Side Union High School - TAH Grant
East Side Union High School District
$99,154

Margo McBane
Anne Fountain
Before Silicon Valley: A Migrant Path to Mexican American Civil Rights
National Endowment for the Humanities
$40,000

E. Bruce Reynolds
East Asian Regional Materials and Resources Center (EARMARC)
UC Berkeley
$3,000

East Asian Regional Materials and Resources Center (EARMARC)
Stanford University
$4,000

Political Science

Melinda Jackson
Commercial Waste and Recycling Service Rate
City of San José
$47,500

Psychology

Vernol Battiste
Summer Stallmann
Quang Dao
Center for Human Factors in Advanced Aeronautics Technologies
CSU, Long Beach Foundation
$150,000

Brian Gore
Human-Automation Interactions and Performance Analysis of Lunar Lander Supervisory Control
The Charles Stark Draper Laboratory
$12,584

Brian Gore
Becky Hooey
Space Human Factors and Habitability-MIDAS-FAST: Development and Validation of a Tool to Support Function Allocation
Alion Science and Technology Corporation
$30,000

Kevin Jordan
Flight Deck and Airspace Operations Research
Perot Systems
$4,483,235

Modeling and Simulation of Human Performance
NASA
$4,260,724

Crew Factors and Team Performance
NASA
$3,587,641

Flight Control and Autonomous Flight Systems Research
NASA
$1,280,771

User Augmented Visualizations for Targeted Evaluation of Systems and Technologies (UAV-TEST)
Aptima, Inc.
$9,837

Joel Lachter
Human Decision Making
Stanford University
$50,000

Dorion Liston
Robust Human-System Interface Design for Spaceflight Induced Environments (SAO 2002)
National Space Biomedical Research Institute
$231,985

Audra Ruthruff
Test Subject Recruitment Office
Perot Systems
$248,069

Urban and Regional Planning

Richard Kos
Dayana Salazar
Energy Retrofit Ramp Up Project
San José Redevelopment Agency
$20,000

Hilary Nixon
Engaged Interdisciplinary Learning in Sustainability (EILS): Enhancing STEM Education Through Social and Technological Literacy
National Science Foundation
$27,328

Dayana Salazar
Five Wounds/Brookwood Terrace (FWBT) Safe Neighborhoods Program
City of San José
$20,000

Dayana Salazar
CommUniverCity San José: Community Service Projects
San José Redevelopment Agency
$90,000

CommUniverCity-McKinley Late Night Teen Program
City of San José
$8,000

University Programs

Total: $2,292,937

Academic Services

Jeannine Slater
The Ronald E. McNair Post Baccalaureate Achievement Program
U.S. Department of Education
$243,000

Student Support Services (ASPIRE)
U.S. Department of Education
$441,938

Academic Technology

Mary Fran Breiling
ENACT: PDT
Sonoma State University
$29,000

Associated Students

Maria Davis
Child Care Access Means Parents in School (CCAMPIS)
U.S. Department of Education
$205,579

Career Center

Cheryl Allmen-Vinnedge
Julie Sedlemeyer
SJSU Workability IV Program 2010-2013
California Department of Rehabilitation
$442,240

SJSU Workability IV Program (ARRA)
California Department of Rehabilitation
$10,463

Curriculum and Assessment

Debra David
Give Students a Compass: College Learning, General Education and Student Success
Trustees of the California State University
$15,000

Elena Klaw
(STEM)2 Laying the Foundation
California State University System
$4,000

Elena Klaw
Dayana Salazar
Bridging Borders AmeriCorps Program 2010-2011
California Service Corps
$350,537

Graduate Studies and Research

James Wayman
Consultancy Support to the CESG Biometrics Test Programme
Communications-Electronics Security Group
$100,442

SJSU Research Foundation

Jerri Carmo
Research Administrative Resources for the Space Research Directorate
Lockheed Martin Corporation
$119,588

Student Services

Connie Hernandez Robbins
Terri Thames
Living, Learning and Belonging—Connecting Former Foster Youth to the Dream of a College Education
Walter S. Johnson Foundation
$125,000

Student Academic Success Services

Maureen Scharberg
Nanotechnology in the Schools
Foothill-DeAnza Community College District
$9,180

Student Health Services

Roger Elrod
Safer California Universities: A Multi-Campus Alcohol Problem Prevention Study
Prevention Research Center
$19,200

Dr. Martin Luther King, Jr. Library

Ruth Kifer
Expanding Humanities Resources in the Heart of Silicon Valley
National Endowment for the Humanities
$50,561

Toby Leigh Matoush
Louis May Alcott: The Woman Behind Little Women *- Library Outreach Programs*
National Endowment for the Humanities
$2,500

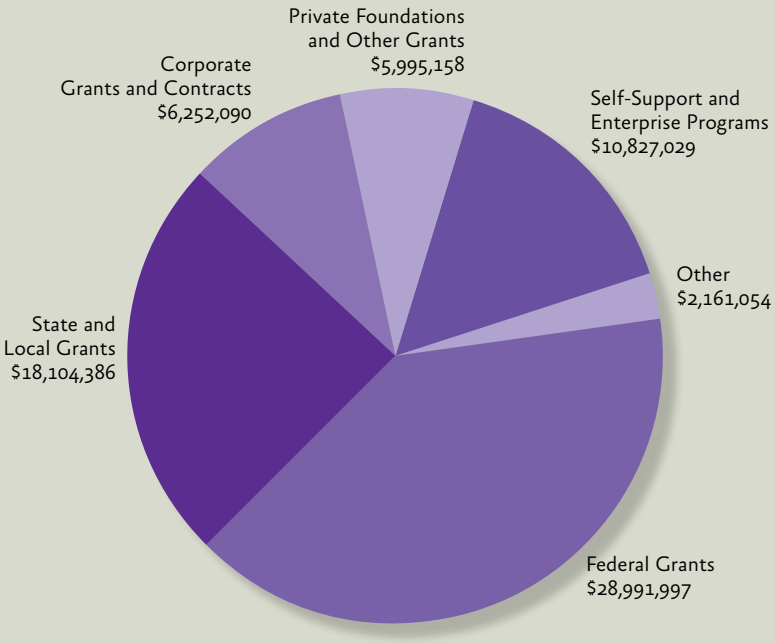
Danelle Moon
Detailed Processing of the John C. Gordon and Ted Sahi Photographic Collections
National Archives and Records Administration
$99,709

University Police

Peter Decena
2008 HSGP CSU Subawards
U.S. Department of Homeland Security
$25,000

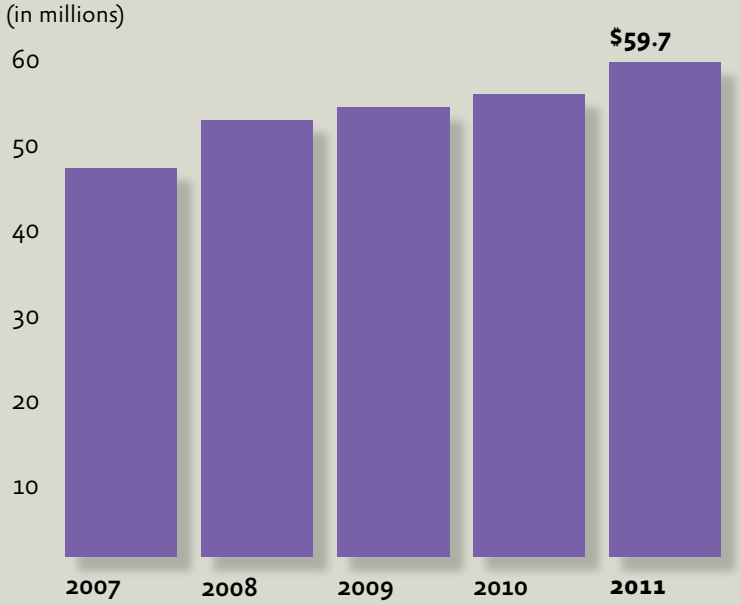
San José State University Research Foundation
Summary of Financial Activities 2010-2011

Revenues: $72,331,714



Research Grants and Contracts Expenditures

(in millions)



San José State University Research Foundation Board of Directors

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Provost & Vice President of Academic Affairs, SJSU

Pamela Stacks
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Associate Vice President for Graduate Studies & Research, SJSU

Shawn Bibb
Treasurer, SJSU Research Foundation
Vice President of Administration & Finance, SJSU

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Charles Bullock
Dean, College of Applied Sciences and Arts

Michael Parrish
Dean, College of Science

Roy Okuda
Professor, Chemistry

Sally Veregge
Director,
Masters in Biotechnology Program

James Harvey
Interim Director, Moss Landing Marine Labs

Emily Allen
Associate Dean, College of Engineering

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Graduate Student,
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Bill Rhodes
President, BD Biosciences

Gary Silver
CardioThoracic Surgeon (Retired)

Non-Voting Members

William Gates, Esq.
Legal Counsel
Gates, Eisenhart, Dawson

Mary Sidney
Chief Operating Officer and Board Secretary
SJSU Research Foundation

San José State University Research Foundation

Statement of Activities

Fiscal year ending June 30, 2011 (unaudited)

Revenue and Support

Federal Contracts and Grants	$24,043,597
State Contracts and Grants	16,508,527
Other Contracts and Grants	10,251,922
Indirect Cost Recovery-C&G	8,539,585
Administrative and Program Fees	813,052
Gifts and Pledges	409,315
Investment Income	2,161,054
Other Revenue and Support	3,039,951
Campus Organization Other Revenue and Support	6,564,711
Total Revenue	**$72,331,714**

Expenses

Program Activities	
Sponsored Programs	$50,651,010
Board Designated Programs	2,245,607
Enterprise Activities	3,115,322
Campus Organization Expenditures	8,753,436
Support Activities-Management and General	6,976,349
Other Expenses and Transfers	79,711
Total Expenses	**$71,821,435**

CHANGE IN NET ASSETS	510,279
PENSION RELATED CHANGES	3,357,543
NET ASSETS-BEGINNING OF YEAR	6,882,902
TRANSFER OF ASSETS TO TOWER FOUNDATION	(226,716)
NET ASSETS-END OF YEAR	**$10,524,008**

San José State University Research Foundation

For more information about our programs or to learn how you might partner with the SJSU Research Foundation, visit our web site at www.sjsufoundation.org or call 408-924-7395.

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