

2014 Zumberge Individual Awardees

Alison Hirsch, Architecture, USC School of Architecture

“Landscape Architecture as 'Thick Description' - Ritual, Performance, Memory”

Ann Owens, Sociology, USC Dornsife College of Letters, Arts and Sciences

“Hispanic Neighborhood Ascent across U.S. Cities”

Barbara Sargent, Biokinesiology & Physical Therapy, Herman Ostrow School of Dentistry

“Development and Validity of an in-home infant Kicking Activated Mobile (iKAM)”

Diana O’Brien, Political Science, Dornsife College of Letters, Arts and Sciences

“Representing Women: Presence, Power, and Policy”

Jon-Paul Pepper, Otolaryngology, Keck School of Medicine

“Peripheral nerve grafts engineered from mature human fibroblasts”

Karen Woo, Surgery, Keck School of Medicine

“Defining Surgical Quality in Dialysis Access: a RAND/UCLA Appropriateness Study”

Liana Asatryan, Clinical Pharmacy & Pharmaceutic Econ & Policy, USC School of Pharmacy

“The role of P2X7 receptors in alcohol-induced neuroinflammation and degeneration”

Megan Rosenbloom, Health Sciences Libraries, USC Libraries

“Travel support for death history book research”

Neetu Khanna, Comparative Literature, USC Dornsife College of Letters, Arts and Sciences

“Progressive Feeling: Visceral Realisms and Marxist Aesthetics in the Literature of Decolonizing”

Smaranda Marinescu, Chemistry, USC Dornsife College of Letters, Arts and Sciences

“Metal-Organic Surfaces for Solar Energy Conversion”

Xin Tong, Information & Operations Management, Marshall School of Business

“Information Exchange in Social Networks: a Finite Population and Communication Perspective”

Zsolt Toth, Molecular Microbiology & Immunology, Keck School of Medicine

“Regulation of the establishment of KSHV latency by the Latency-Associated Nuclear Antigen (LANA)”

2013 Individual Awards

Ansgar Siemer , Biochemistry and Molecular Biology, Keck
"The Structure of a Functional Amyloid in Long- Term Memory"

Beatriz Ilari, Thornton School of Music
"The Effects of Extracurricular music and sports on children's brain, cognitive, motor and social development: A Cross-sectional study"

Benjamin Graham, International Relations, Dornsife College of Letters, Arts and Sciences
"Social Networks, Political Risk, and Foreign Direct Investment?"

Cary Frydman, Finance & Business Economics, Marshall School of Business
"Neural Decoding of Investor Preferences"

Changhan Lee, Gerontology
"Targeting Obesity and Type 2 diabetes by a novel mitochondria-encoded peptide"

David Bridel, Dramatic Arts, School of Theatre
"Clowns Across Continents: When Cultures Collide"

David Rose, Mathematics, Dornsife College of Letters, Arts and Sciences
"Categorified quantum groups and knot homology"

Eunjung Lee, Preventive Medicine, Keck School of Medicine
"Implementing Alzheimer's disease research in the California Teachers Study cohort"

Jeremy Goldbach, Social Work, School of Social Work
"Understanding Minority Stress in LGDT Adolescents"

Laura Ferguson, Preventive Medicine, Keck School of Medicine
"Is a new global guidance on the prevention of mother-to-child transmission of HIV acceptable to women diagnosed with HIV during pregnancy?"

Melanie Goldfarb, Surgery – Clinical Faculty, Keck School of Medicine
"Thyroid Nodules and Cancer in Pediatrics, Adolescent and Young Adult Survivors of Head and Neck Radiation"

Michael Bowdish, Surgery –Clinical Faculty, Keck School of Medicine
"Characterization of asymmetric dimethylarginine (ADMA), citrulline, and L-arginine levels in patients with pulmonary hypertension secondary to left heart disease before and after left ventricular assist device implantation"

Minlan Yu, Computer Science, Viterbi School of Engineering
"Real- time measurement for data center networks"

Olivia Harrison, French and Italian, Dornsife College of Letters, Arts and Sciences
"Transcolonial Maghreb: Reading Palestine in Maghrebi Literature"

Sandrah Eckel, Preventive Medicine, Keck School of Medicine
“Nonlinear mixed effects models for multiple flow exhaled nitric oxide”

Weiwei Hu, Mathematics, Dornsife College of Letters, Arts and Sciences
“Model Reduction and Feedback Boundary Control of a Thermal Fluid with Application to Control Design of Energy Efficient Buildings”

Youngmin Choe, East Asian Language and Cultures, Dornsife College of Letters, Arts and Sciences
“Tourist Distractions: Traveling and Feeling in South Korea’s Reconciliatory Cinema”

2012

Sanjeev Baniwal, Department of Orthopaedics, Keck School of Medicine “Role of Prolactin-induced protein in regulating cytoskeleton dynamics and proliferation of breast cancer cells”

Todd Chang, Department of Pediatrics, Keck School of Medicine “Multimedia in the Assessment of Clinical Decision Making Skills among Pediatric and Emergency Medicine Residents”

William Halfond, Department of Computer Science, Viterbi School of Engineering “Estimating Mobile Software Power Consumption Using Program Analysis”

Houchun Hu, Department of Pediatrics, Keck School of Medicine “Magnetic Resonance Imaging of Human Brown Adipose Tissue”

Jimi Huh, Institute for Prevention Research, Keck School of Medicine “Ecological Contexts of Smoking among Korean American Emerging Adults”

Eve Kelland, Department of Neurology, Keck School of Medicine “Humanizing mouse CNS stem cells: defining functional human CXCR1 expression in murine neural stem cells and their use in developing a humanized CXCR1 mouse for assessing the pathology of demyelinating diseases”

May Anne Kim-Tenser, Department of Neurology, Keck School of Medicine “The Use of Minocycline in Intracerebral Hemorrhage”

Aaron Lauda, Department of Mathematics, Dornsife College of the Letters and Sciences “Odd categorification of quantum groups”

Anne Schuckman, Department of Urology, Keck School of Medicine “Human Papilloma Virus as a Novel Prognostic Factor in Penile Squamous Cell Carcinoma”

Susan Sigward, Department of Biokinesiology & Physical Therapy, Ostrow School of Dentistry “The Development of Postural Strategies in Children”

Sheila Sofian, School of Cinematic Arts “Truth Has Fallen”

Kelly Turner, School of Social Work “An Experimental Examination of the Use of Standardized Clients to Develop Military-Specific Clinical Skill among MSW Students”

2011

Xiaoyi Gao

Department of Ophthalmology, Keck School of Medicine

“Multiple Testing Corrections for Imputed SNPs in Latino Genome-wide Association Studies”

Erick Guerrero

School of Social Work

“Implementation of Co-occurring Disorder Treatment in Behavioral Health Services in L.A. County”

Shinwu Jeong

Department of Ophthalmology, Keck School of Medicine

“A Novel Anti-inflammatory Peptide Therapeutic for Dry Eye Disease”

Rongjie Lai

Department of Mathematics, Dornsife College of Letters, Arts and Sciences

“Computational Geometry and Applications to Medical Imaging”

Shuanglong Liu

Department of Radiology, Keck School of Medicine

“Melanin-targeted PET imaging of Melanoma Using Quinoxaline Derivatives”

Yan Liu

Department of Computer Science, Viterbi School of Engineering

“Granger Graphical Models for Scientific Discovery in Biology, Social Science and Climate Science”

Amy Merrill-Brugger

Department of Biomedical Sciences, Ostrow School of Dentistry

“Defining the Distinction between Cell Surface and Nuclear Activities of FGFR2 Signaling During Skeletal Development”

Azin Shahryarinejad

Department of Obstetrics/Gynecology, Keck School of Medicine

“Genetic Predictors and Epigenetics of Female Organ Prolapse”

Susumu Takahashi

Department of Chemistry, Dornsife College of Letters, Arts and Sciences

"Towards Single Spin Detection Using Diamond Nanocrystals: Sensitivity Enhancement via Manipulating Spin Coherence Using High Magnetic Field"

Terry Takahashi

Department of Chemistry, Dornsife College of Letters, Arts and Sciences

"Engineering RNA Binding Proteins with Novel Specifics"

Heather Volk

Department of Environmental Health, Keck School of Medicine

"A Birth Records Based Analysis of Autism and Air Pollution in Anaheim"

Hsiao Huei (Juli) Wu

Department of Cell & Neurobiology, Keck School of Medicine

"MET/HGF Signaling in Hearing Development and Autism"

2010

Jernej Barbic

Department of Computer Science, Viterbi School of Engineering

"Interactive Physical Simulation for Computer Graphics, Film and Games"

Marco Bortolato

Pharmacology & Pharmaceutical Science, School of Pharmacy

"Role of Monoamine Oxidase in the Outcomes of Early Material Separation"

Kai Chen

Department of Radiology, Keck School of Medicine

"[¹⁸F]FMAU PET Assessment of Chemotherapeutic Response in Non-Small Cell Lung Cancer"

Ramen H. Chmait

Department of Obstetrics & Gynecology, Keck School of Medicine

"A Fetal Surgical Model for Neural Stem Cell Delivery and Myelomeningocele Repair"

Yingying Fan

Department of Information & Operations Management, Marshall School of Business

"New Methodologies for High Dimensional Sparse Models"

Malancha Gupta

Department of Chemical Engineering & Material Science, Viterbi School of Engineering

"Fabrication of Bio-Inspired Nanostructured Polymeric Materials"

Roksana Karim

Pediatrics/Preventive Medicine, Keck School of Medicine

"Subclinical Atherosclerosis in HIV-infected Children and Adolescents"

Kathleen Page

Department of Internal Medicine, Keck School of Medicine

"Mechanisms Underlying Risk for Obesity and Type 2 Diabetes in Hispanic Youth with a History of Intrauterine Exposure to Gestational Diabetes Mellitus"

Mark Shiroishi

Department of Radiology, Keck School of Medicine

"Assessing the Value of Perfusion and Permeability MR Imaging to Characterize Pseudoprogression and Pseudoresponse in Patients with High-Grade Glioma"

Barbara Thompson

Department of Cell & Neurobiology, Keck School of Medicine

"Social Motivation in Children with and without Autism"

Xuelin Wu

Department of Biology/MCB, College of Letters, Arts and Sciences

"Identification of Early Molecular Events in Sugar-Induced Dedifferentiation in *Arabidopsis thaliana*"

2009

Curtis Cetrulo

Department of Surgery, Keck School of Medicine

"Long-term Permanent Gene Expression in Myocutaneous Flaps"

Roberto Delgado

Department of Anthropology, College of Letters, Arts and Sciences

"Variation in Diet, Behavior and Energy Budgets among Zanzibar Red Colobus"

Alireza Dibazar

Department of Anthropology, College of Letters, Arts and Sciences

"Nonlinear Dynamic Modeling of Impaired Voice for the Purpose of Restoring Lost Function"

Reyes Enciso

School of Dentistry

"Differential Diagnosis of Periapical Lesions with Cone-Beam CT"

Rahul Jain

Department of Electrical Engineering, Viterbi School of Engineering

"Economics of Quality of Service on the Internet"

Zibo Li

Department of Radiology, Keck School of Medicine

"Integrin $\alpha 2\beta 1$ Targeted Imaging of Prostate Cancer"

Keigo Machida
Department of Microbiology and Immunology
"Hepatocellular Carcinoma Induced by Hepatitis C Virus"

Francesca Mariani
Department of Cell & Neurobiology, Keck School of Medicine
"Skeletal Regeneration in Adult and Neonate Mice"

Coralie Poizat
Department of Biochemistry, Keck School of Medicine
"Role of LMPTP in Cardiac Contractility"

B.J. Shen
Department of Psychology, College of Letters, Arts and Sciences
"Anxiety and Progression of Subclinical Coronary Heart Disease"

Gregory Stevens
Department of Medicine, Keck School of Medicine
"National Disparities in the Quality of a Medical Home for Children"

2008

Hossein Ameri
Doheny Eye Institute, Keck School of Medicine
"Subchoroidal Retinal Prosthesis for Sight Restoration"

Woojin An
Department of Biochemistry & Molecular Biology, Keck School of Medicine
"Development of Cell Permeable Histone H3 Tail Mimics as a Transcription Blockade"

Zemin Deng
Department of Psychiatry & Behavioral Sciences, Keck School of Medicine
"Discovery of X-linked Genetic Loci for Schizophrenia Using Next Generation DNA Re-sequencing"

David Etzioni
Department of Colorectal Surgery, Keck School of Medicine
"Adjuvant Therapy for Colon and Rectal Cancer in Los Angeles County: Analysis of Use, Strategies for Improvement"

Amani Fawzi
Department of Ophthalmology, Keck School of Medicine
"The Use of Ultrasound to Enhance Drug Delivery to Ocular Tumors"

Derick Han, Department of GI and Liver, Keck School of Medicine
"New Strategies to Reduce Drug Induced Liver Injury"

Jinchi Lv
Marshall School of Business
"High Dimensional Variable Selection and Covariance Matrix Estimation"

Nerses Sanossian
Department of Neurology, Keck School of Medicine
"Dysfunctional High-Density Lipoprotein Cholesterol and the Brain"

Dong Song
Department of Biomedical Engineering, Viterbi School of Engineering
"Nonlinear Dynamic Modeling of Hippocampal System Function during Learned Behavior and Memory Formation"

Olga Solomon
Occupational Sciences, School of Dentistry
"Animal Assisted Therapy as Socially Assistive Technology: Implications for Autism"

Wiebke Ziebis
Department of Biological Sciences, College of Letters Arts and Sciences
"Animal-Sediment-Microbe Interactions at Pacific Methane Seeps"

2007

Lisa Aziz-Zadeh
School of Dentistry and USC Brain and Creativity Institute
"Neural Basis for the Perception of Prosody"

Orlando Betancor
Department of Spanish & Portuguese, College of Letters, Arts and Sciences
"The Life of Metals in Potosi"

Yong Chen
Department of Industrial & Systems Engineering, Viterbi School of Engineering
"Designing Complex Internal Structures for Rapid Manufacturing"

Eun Jin Lee
Department of Biomedical Engineering, Viterbi School of Engineering
"Visual Controls in Retinal Development"

Eric Ley
Department of Surgery, Keck School of Medicine

"Increased Receptor Tyrosine Kinase Expression in Colon Cancer"

Aimin Li

Obstetrics & Gynecology, Keck School of Medicine

"Effects of 17-a Hydroxyprogesterone Caproate on Infection-Induced Preterm Birth"

Oliver Mayer

Playwriting, School of Theatre

"Six-Play Thematic Cycle"

Ruty Mehrian-Shai

Department of Biochemistry, Keck School of Medicine

"Oligodendroglioma miRNA Profiling and Treatment Response"

Christine Pollard

Department of Biokinesiology, School of Dentistry

"Mechanisms of Articular Cartilage Changes Following Anterior Cruciate Ligament Reconstruction: Effect of Various Surgical Procedures"

Anne Porter

School of Religion, College of Letters, Arts and Sciences

"Community and Cosmology; Participatory Political Practice In Ancient Mesopotamia"

Shirin Towfigh

Department of Surgery, Keck School of Medicine

"Evaluation of Wound Probing to Reduce Wound Infection in Contaminated Wounds"

Yan Zhou

Center for Craniofacial Molecular Biology, School of Dentistry

"Human Embryonic Stem Cells and Neural Crest Osteogenesis"

2006

Steven Anderson

Interactive Media Division, School of Cinematic Arts

"Open Source Scholarship: Innovations in Digital Research, Publication and Pedagogy"

Bettine Birge

Department of East Asian Languages and Cultures, College of Letters, Arts and Sciences

"Marriage and the Law in Mongol-Yuan China"

Samantha Butler
Department of Biological Sciences, College of Letters, Arts and Sciences
"Mechanisms of Axon Guidance in the Developing Spinal Cord"

Meiling Cheng
School of Theatre
"Beijing Xingwei: Time-Based Experimental Art in China"

Sarah Gualtieri
Department of History, College of Letters, Arts and Sciences
"Race and Identity Among Arab Immigrants in the United States"

Alexandra Hammond-Isfahani
Department of Spanish & Portuguese, College of Letters, Arts and Sciences
"White Negritude: Race, Writing, and Brazilian Cultural Identity"

Young-Kwon Hong
Department of Surgery, Keck School of Medicine
"A Novel Anti-Lymphangiogenic Therapy Against Kaposi's Sarcoma"

Jane Iwamura
Departments of Religion & American Studies, College of Letters, Arts and Sciences
"Altared States: A Cultural History of the Japanese American Home Shrine"

Elsi Kaiser
Department of Linguistics, College of Letters, Arts and Sciences
"Investigating the Effects of Discourse Factors on Real-Time Pronoun Interpretation"

Mohammad Pashmforoush
Department of Medicine, Keck School of Medicine
"Defining the Molecular Pathways for Cardiac Conduction Cell Development"

Judd Rice
Department of Biochemistry and Molecular Biology, Keck School of Medicine
"Identification of Histone H3 Lysine 9 Methyl-Specific Binding Proteins"

James Spindler
School of Law
"Do Mandatory Disclosure Rules Result in Better Information for the Marketplace?"

Bangyan Stiles
Department of Molecular Pharmacology and Toxicology, School of Pharmacy
"The Mechanisms of PTEN Regulated B-cell Regeneration"

Antonia Szabari
Departments of French and Italian and Comparative Literature, College of Letters, Arts and Sciences
"Less Rightly Said: Scandalous Words in the French Reformation"

Maria Villacres

Department of Pediatrics, Keck School of Medicine

"Role of Single Nucleotide Polymorphisms on T-Cell Responses Following HIV Treatment"

Song-Guo Zheng

Department of Medicine, Keck School of Medicine

"CD4+CD25+ Regulatory T-Cells Generated Ex Vivo Cure Systemic Lupus Erythematosus"