

FOUNDING FACULTY

Faculty recruitment is well under way at UC Merced, where many of the world's outstanding scholars are already hard at work laying an academic foundation of excellence. By opening day, UC Merced will have 60 of these highly respected educators and cutting-edge researchers on board. As members of the founding faculty, these professors are charged with responsibilities that extend beyond teaching and research to include recruitment of additional faculty members and planning of academic programs. The following list includes founding faculty members whose appointments were finalized prior to the publication of this catalog.

KEITH E. ALLEY,

Vice Chancellor of Research/Dean of Graduate Studies and Professor, School of Natural Sciences

B.S., D.D.S., M.S., Ph.D., University of Illinois

Developmental neuroscience focusing on cellular mechanisms that assure scaling of neuronal populations with the targets they innervate, neuromuscular maturation and plasticity

DAVID B. ASHLEY,

Executive Vice Chancellor/Provost, Professor and holder of the Shaffer-George Chair in Engineering

B.S., M.S., Massachusetts Institute of Technology; M.S., Ph.D., Stanford University

Development and implementation of risk analysis techniques appropriate for project management and construction-engineering decisions. Determination of factors leading to construction project success, predictive models of project performance, assessment of project change consequential effects, project scope modeling and definition, conceptual estimating, innovative project financing approaches

ROGER C. BALES,

Professor, School of Engineering

B.S., Purdue University; M.S., University of California, Berkeley; M.S., Ph.D., California Institute of Technology

Hydrology, snow and ice, hydrochemistry, climate impacts on water resources, climate changes over polar ice sheets

MIRIAM BARLOW,

Assistant Professor, School of Natural Sciences

B.S., University of Utah; M.S., Ph.D., University of Rochester

Evolution of bacteria, predicting the evolution of antibiotic resistance, testing evolutionary theory

JINAH CHOI,

Assistant Professor, School of Natural Sciences

B.S., University of California, Los Angeles; Ph.D., University of Southern California Hepatitis C virus (HCV) and the mechanism of synthesis and functions of novel HCV proteins that are produced by programmed translational frameshifting, as well as how HCV replication might be regulated by endogenous and exogenous agents including ribavirin, cytokines, alcohol and reactive oxygen species

MICHELLE M. CHOUINARD,

Assistant Professor, School of Social Sciences, Humanities and Arts

B.A., University of California, Berkeley; M.A., Ph.D., Stanford University Mechanisms of conceptual change in the context of conversational interaction, the role of children's questions in conceptual development, development of biological knowledge, language acquisition, the roles of positive and negative evidence in language acquisition, word learning and label extension in language acquisition.

MICHAEL E. COLVIN,

Professor, School of Natural Sciences

S.B. (2), Massachusetts Institute of Technology;

Ph.D., University of California, Berkeley Computational and systems biology, biotechnology, computational chemistry

MARTHA H. CONKLIN,

Professor, School of Engineering

B.A., Mount Holyoke College; M.S., Ph.D., California Institute of Technology

Biogeochemistry, metal cycling, surface water/shallow groundwater interactions, organic chemical distribution in soil and groundwater; chemical processes in snow, K-12 environmental education

HENRY JAY FORMAN,

Professor, School of Natural Sciences

B.A., Queens College; Ph.D., Columbia University

Signal transduction, antioxidants and redox signaling, lung disease

JAN GOGGANS,

Assistant Professor, School of Social Sciences, Humanities, and Arts

B.A., M.A., California State University, Sacramento; Ph.D., University of California, Davis

American literature, American nature writing and literature of the environment, California literature and culture, literature of the Central Valley, literature and culture of the Great Depression, literature and photography

JESSICA LEE GREEN,

Assistant Professor, School of Natural Sciences

B.S., University of California, Los Angeles; M.S., Ph.D., University of California, Berkeley

Community ecology, scaling and spatial phenomena in ecology, theoretical ecology, conservation biology, microbial diversity

KENJI HAKUTA,

Dean, School of Social Sciences, Humanities and Arts, and Professor, School of Social Sciences, Humanities and Arts

B.A., Ph.D., Harvard University

Psychology of bilingualism and second language learning, child development, psycholinguistics, education policy, equal educational access for minority students THOMAS C. HARMON,

Associate Professor, School of Engineering

B.S., John Hopkins University; M.S., Ph.D., Stanford University

Contaminant transport in aquatic systems, soil and groundwater remediation, development and use of environmental sensors

EVAN HEIT,

Professor, School of Social Sciences, Humanities and Arts

B.S.E., B.A., University of Pennsylvania; Ph.D., Stanford University

Categorization, inductive reasoning, recognition memory, computer simulation and mathematical modeling, intuitive statistical judgment.

GREGG HERKEN,

Professor, School of Social Sciences, Humanities and Arts

B.A., University of California, Santa Cruz; Ph.D., Princeton University

History, American diplomatic history, nuclear history, history of Cold War

SHAWN E. KANTOR,

Professor, School of Social Sciences, Humanities and Arts

B.A., University of Rochester; M.S., Ph.D., California Institute of Technology

Political economy, law and economics, U.S. economic history, economic development, public economics

ANNE MYERS KELLEY,

Professor, School of Natural Sciences

B.S., University of California, Riverside; Ph.D., University of California, Berkeley Resonance Raman spectroscopy and microscopy, molecular photochemistry and photophysics, organic materials for nonlinear optics, modeling of spectroscopic data

DAVID F. KELLEY,

Professor, School of Natural Sciences

B.S., Whitworth College; Ph.D., University of Washington

Spectroscopy and dynamics of semiconductor nanoparticles, ultrafast spectroscopy of excited states and reactive intermediates, solvation effects on proton and electron transfer reactions, vibrational dynamics of gas phase molecules

ARNOLD D. KIM,

Assistant Professor, School of Natural Sciences

B.S., Northwestern University; M.S., Ph.D., University of Washington

Wave propagation in random media, light propagation in tissues, wireless communications, scientific computing, asymptotic and perturbation methods

VALERIE J. LEPPERT,

Assistant Professor, School of Engineering B.A. (2), California State University, Sonoma; Ph.D., Northwestern University Electron microscopy, nanomaterials for application in technology and the environment

SEAN MALLOY,

Assistant Professor, School of Social

Sciences, Humanities, and Arts

B.A., University of California, Berkeley; M.A., Ph.D., Stanford University

The study of war and morality, American political history, utopian and extremist movements in the 1930s, the domestic sources of U.S. foreign policy, and the ways in which economics, religion and culture shape Americans' interactions with the rest of the world

JENNIFER MANILAY,

Assistant Professor, School of Natural Sciences

B.A., University of California, Berkeley; Ph.D., Harvard University

Mechanisms that control cell fate decisions in the immune system, the development of T lymphocytes, important components of immune defense against pathogens

MANUEL M. MARTIN-RODRIGUEZ,

Professor, School of Social Sciences, Humanities and Arts

Licenciatura, Universidad de Sevilla (Spain), M.A., University of Houston, Ph.D., University of California, Santa Barbara

Cross-disciplinary perspectives from cultural, ethnic and film studies, including identity formation, globalization and transnationalism, border studies, textual recovery, intra-cultural difference, the Hispanic context of Chicano/Chicana literature, popular culture and the mass media

TEENIE MATLOCK,

Assistant Professor, School of Social Sciences, Humanities and Arts

B.A., M.A., California State University, Fresno; Ph.D., University of California, Santa Cruz

Cognitive science, psycholinguistics, spatial cognition, metaphor, semantics, gesture

MONICA MEDINA,

Assistant Professor, School of Natural Sciences

B.S., Universidad de Los Andes, Bogota, Columbia; Ph.D., University of Miami
Phylogenetics and organelle genome evolution of marine invertebrate animals, genomics of coral-zooxanthellae symbioses in Caribbean reefs

MATTHEW MEYER,

Assistant Professor, School of Natural Sciences

B.S., University of Kansas, M.S., University of Wisconsin, Ph.D., Texas A&M
University Research on using temperature-dependent isotope effects as a probe for enzyme dynamics in soybean lipoxygenase-1

KEVIN A. MITCHELL,

Assistant Professor, School of Natural Sciences

B.S., Carnegie Mellon University; M.A., Ph.D., University of California, Berkeley
Nonlinear dynamics and classical/quantum chaos with applications to atomic and molecular physics; semi-classical phase-space

techniques; topological and geometric methods for low-dimensional systems; the geo- metric/Berry phase and gauge theory

RUTH MOSTERN,

Assistant Professor, School of Social Sciences, Humanities and Arts

B.S., Georgetown University, M.A., Ph.D., University of California, Berkeley
Geography and state power in Middle Period China; georeferencing and digital mapping of historical and cultural phenomena

SHAWN D. NEWSAM,

Assistant Professor, School of Engineering

B.S., University of California, Berkeley; M.S., University of California, Davis; Ph.D., University of California, Santa Barbara

Image processing, computer vision, pattern recognition, machine learning, content-based information retrieval, digital libraries, data mining, knowledge discovery in spatio-temporal, multi-media, and scientific datasets.

ROBERT S. OCHSNER,

Director of Writing and Lecturer, UC Merced Writing Program

B.A., Western Washington University; M.A., Ph.D., University of California, Los Angeles

Social and cultural issues of teaching “white” English, a research focus that joins ESL theory with social constructionist insights about the power relationships between teacher and student or among diverse students in groups

PEGGY A. O'DAY,

Associate Professor, School of Natural Sciences

B.S., University of California, Davis; M.S., Cornell University; Ph.D., Stanford University

Aqueous, surface and environmental geo-chemistry; biogeochemistry and transport of inorganic contaminants in natural systems; geochemical applications of spectroscopy and microscopy; chemistry in hydrothermal systems

DAVID M. OJCIUS,

Professor, School of Natural Sciences

B.A., Ph.D., University of California, Berkeley

Infection by intracellular pathogens, particularly *Chlamydia trachomatis*; interaction between infected cells and the immune system; mechanisms of cell death; innate immunity

RUDY MARTIN ORTIZ,

Assistant Professor, School of Natural Sciences

B.A., M.Sc., Texas A & M University; Ph.D., University of California, Santa Cruz

Endocrine physiology; physiological adaptations in water and electrolyte homeostasis and fat metabolism during extreme conditions such as prolonged fasting and altered gravitational load

MARIA G. PALLAVICINI,

Dean, School of Natural Sciences, and Professor, School of Natural Sciences

B.S., University of California, Berkeley; Ph.D., University of Utah

Stem cell biology; genomic and proteomic abnormalities in cancer, particularly leukemia and breast cancer; relationships between genetic damage induced by chemical exposure and cancer development

DUNYA RAMICOVA,

Professor, School of Social Sciences, Humanities and Arts

B.F.A., Goodman School of Drama, M.F.A., Yale University School of Drama

Costume design for theatre, opera, ballet, dance, film and television; history of costume design; history of clothing and fashion; drawing; watercolor painting

BELINDA I. REYES,

Assistant Professor, School of Social Sciences, Humanities and Arts

B.S., University of Illinois, Urbana- Champaign; Ph.D., University of California, Berkeley

Demography, immigration, immigration policy, immigrant adaptation, race and ethnicity, urban economics, and social and economic progress of race/ethnic minorities

CRISTIÁN H. RICCI,

Assistant Professor, School of Social Sciences, Humanities and Arts

B.A., California State University, Los Angeles; M.A., Ph.D., University of California, Santa Barbara

19th-and 20th-century Spanish literature, 19th-and 20th-century Spanish-

American literature, Portuguese literature, Golden Age and Colonial literature.

WILLIAM R. SHADISH,

Professor, School of Social Sciences, Humanities and Arts

B.A., Santa Clara University; M.S., Ph.D., Purdue University

Clinical psychology, experimental and quasiexperimental design, meta-analysis, program evaluation, psychology of science

MAYYA TOKMAN,

Assistant Professor, School of Natural Sciences

B.S., University of California, Los Angeles; Ph.D., California Institute of Technology

Numerical methods, scientific computing

CAROL TOMLINSON-KEASEY,

Chancellor and Professor, School of Social Sciences, Humanities and Arts

B.A., Pennsylvania State University; M.S., Iowa State University; Ph.D., University of California, Berkeley

Developmental psychology, development of cognitive potential

SAMUEL J. TRAINA,

Director, Sierra Nevada Research Institute, and Professor, School of Natural Sciences

B.S., Ph.D., University of California, Berkeley

Surface, colloidal and complexation chemistry in soils, sediments and natural waters; remediation of contaminated soils and sediments

CHRISTOPHER VINEY,

Professor, School of Engineering

B.A., Ph.D., Cambridge University

Biomolecular materials (design of materials synthesis, assembly, processing and physical optimization strategies based on examples from nature), physical science

and engineering of polymers and liquid crystals (structure-property-processing relationships)

KATIE L. WINDER,

Assistant Professor, School of Social Sciences, Humanities, and Arts

B.A., Lewis and Clark College; Ph.D., John Hopkins University

Applied microeconomics, labor economics, economics of gender and discrimination, economics of welfare and poverty

ROLAND WINSTON,

Professor, Schools of Engineering and Natural Sciences

B.S., M.S., Ph.D., University of Chicago Solar power and renewable energy, elementary particle physics, non-imaging optics

J. ARTHUR WOODWARD,

Professor, School of Social Sciences, Humanities and Arts

B.S., Wake Forest University; M.A., Ph.D., Texas Christian University

Experimental design, statistical genetics, applied statistics and psychometrics

JEFF R. WRIGHT,

Dean, School of Engineering, and Professor, School of Engineering

B.A., B.S.E., M.S.E., University of Washington; Ph.D., John Hopkins University

Water resources and environmental management; design and implementation of computer-based spatial decision support systems for civil infrastructure, transportation, water resources; land resources engineering and management

JEFFREY YOSHIMI,

Assistant Professor, School of Social

Sciences, Humanities and Arts

B.A., University of California Berkeley; M.A., Ph.D., University of California, Irvine
Philosophy of mind, philosophy of cognitive science, phenomenology (especially Husserl) and neural networks

ADJUNCT PROFESSORS

PHILIP B. DUFFY,

Associate Adjunct Professor, School of Natural Sciences

A.B., Harvard University; M.S., Ph.D., Stanford University

Global climate change; climate modeling; detection of anthropogenic climate change; societal impacts of climate change

ALEKSANDR NOY,

Associate Adjunct Professor, School of Natural Sciences

B.A., Moscow State University, M.S., Ph.D., Harvard University

Nanosynthesis and single-molecule imaging and measurements

WILLEM J.M. Van BREUGEL,

Adjunct Professor, School of Natural Sciences

Ingenieur degree, Eindhoven University; Doctoral degree, Ph.D., Leiden University

Distant massive galaxies, the effects of their central super-massive black holes on the galaxy-formation process, and the formation and evolution of the largest structures known in the Universe: clusters of galaxies

ANTHONY W.H. Van BUUREN,

Associate Adjunct Professor, School of Natural Sciences

B.Sc., Simon Fraser University, M.Sc., Ph.D., University of British Columbia

Synthesis and electronic structure of nanomaterials