



UNIVERSITY of CALIFORNIA • IRVINE

The Irvine Division of the Academic Senate of the University of California  
is pleased to present its Distinguished Faculty Awards for 2013-2014

**MONDAY, DECEMBER 16, 2013**

**4:30 p.m.**

**Newkirk Alumni Center**

**Henry Pontell**

Professor of Criminology, Law and Society  
**Daniel G. Aldrich Jr. Distinguished University Service Award**

**John Dombrink**

Professor of Criminology, Law and Society  
**Distinguished Mid-Career Faculty Award for Service**

**Mahtab Jafari**

Associate Professor of Pharmaceutical Sciences  
**Distinguished Faculty Award for Teaching**

**Sarah Eichhorn**

Lecturer of Mathematics  
**Distinguished Assistant Professor Award for Teaching**

**Paul Dourish**

Professor of Informatics  
**Distinguished Mid-Career Faculty Award for Research**

**Kevork Abazajian**

Associate Professor of Physics and Astronomy  
**Distinguished Assistant Professor Award for Research**

**Barbara Doshier**

UCI Distinguished Professor of Cognitive Sciences  
The recipient of the Distinguished Faculty Award for Research will present a lecture:

**PROCESSING THE VISUAL WORLD: ATTENTION & PERCEPTUAL TRAINING**

~

**Chancellor Michael V. Drake cordially invites you  
to a reception immediately following the lectures.**

## Daniel G. Aldrich Jr. Distinguished University Service Award

### Henry Pontell Professor of Criminology, Law and Society

If there's anything I can say about this award, and my philosophy toward university service, it's that you don't do it alone. As an undergraduate in sociology and political science at SUNY Stony Brook, Professors Michael Schwartz and David Phillips, piqued my interest in race relations, mathematical modeling, political sociology and classical theory. I became hooked on research and worked with over a half-dozen professors, and later served as a research associate at the Stony Brook Medical School where I conducted studies of emergency medical service systems with medical sociologists and doctors (including Tamarath Yolles, who was a major force in creating the 911 system in the U.S.). My eventual interest in criminology was actually coincidental. Professor Forrest Dill, a law and society scholar who later became my doctoral adviser, asked me to assist him with a methodological issue regarding ecological studies of criminal deterrence. That led to a DOJ fellowship, and the publication of my master's thesis as a lead article in the flagship criminology journal. The piece critiqued established studies of deterrence and offered an alternative model of crime and punishment based on system overloads which I elaborated on in my doctoral work. The publication landed me a job at UCI, and later resulted in a book published by Indiana University Press.

Since then, I've researched a number of areas in crime and justice including deterrence, crime seriousness, jail overcrowding, health care fraud, financial fraud, cyber-crime, identity theft, comparative criminology, and the role of fraud in major financial debacles. I've held visiting appointments at universities around the world, have testified before Congress and national commissions, worked with law enforcement organizations and contributed to numerous media stories. During this time I've had the great fortune to work with many incredible scholars including Gil Geis, with whom I began a career as a white-collar criminologist when we worked together with Paul Jesilow on a DOJ grant on medical fraud. Besides being a world-class scholar, Gil was the quintessential mentor, as was Arnie Binder, who created social ecology at UCI, and they both greatly influenced my development as a scholar and approach toward teaching and service. I've had the privilege and pleasure of working with so many outstanding colleagues and staff members for over three decades at UCI, and at various levels of administration and the academic senate. I view service as an integral part of my job, and the most personally rewarding aspects are learning about the workings of the university and making it fulfill its role as a vanguard of social change, building new relationships with many wonderful colleagues, serving in the best ways possible students and faculty who are the reason the university exists in the first place, and respecting and protecting the ultimate guiding principle of shared governance which has made UC one of the finest institutions in the world.

This award means more to me personally than any other I have ever received, as I am so deeply honored and humbled to have my name associated with a truly exceptional leader and visionary, fiercely competitive world-class athlete, great human being, colleague and friend, and sorely missed golf buddy, UCI Founding Chancellor Dan Aldrich.

## **Distinguished Mid-Career Award for Service**

**John Dombrink**  
**Professor of Criminology, Law and Society**

I have been fortunate to serve in a unit (Social Ecology) and with colleagues who have emphasized service, and engage in community-related problem solving research. I was trained as a sociologist, and have served on the faculty of the Program in Social Ecology, and the Department of Criminology, Law & Society. My emphasis has mostly been on the status, attitudes and changes regarding law and personal morality, nationally and cross-culturally, with a book and articles on issues such as gambling legalization, and legal reform of assisted suicide. My most recent book, Sin No More (2007) and the recently completed book manuscript "After the Culture War," focus on morality contests and changing laws and attitudes in America.

As an assistant professor, I became involved with the Orange County Coalition on the Homeless as we did an inventory of available low-cost nightly housing for the growing Orange County homeless population. I learned from activists Jean Forbath and Bobby Lovell, and did weekly volunteer work and later board membership with Share Our Selves in Costa Mesa, which provides emergency services for the low-income and homeless population. I worked closely with colleague Jim Meeker on research on the legal needs of the poor, focusing on a variety of perceptions and programs, with local applicability to the Legal Aid Society. In both those settings, I learned to integrate research and service.

Gary Evans brought me into the Social Ecology-Mentor-Mentee Program, created to retain students of color who often felt isolated at UCI, and who didn't always have the background of higher education in their families, communities and schools. With Gary, and then Carol Stanley, we benefitted from the support of our Directors and Deans. Our 25<sup>th</sup> anniversary event in 2009 brought together many former mentees and mentors who have gone on to excellent careers in law, justice and social fields, including our keynote speaker, then-Assemblyman Jose Solorio. Over those 28 years, we served over 1000 UCI first-generation and low-income students, and provided leadership training for almost 200 mentors.

Former Vice Chancellor of Student Services Manuel Gomez, and his colleague Dr. Juan Lara, brought me into an effort in the late 1990s that I am proud to still be associated with today. When the UC regents passed SP1 in 1995, to end the consideration of race, ethnicity and gender in admissions. the UC system (and UCI notably) created many programs to focus on college readiness in targeted K-12 school districts. The Criminology Outreach Program was formed in 1999, and we still today provide weekly lessons and discussions to 500 middle school and high school students in schools who do not send a large proportion of students to four -year universities (over 10,000 students in 14 years). Mickey Shaw and her predecessors in the SE Dean's Office keep finding outside funding for this, and teacher colleagues like Bob Sterling, Ellen Febonio and Jackie Washington keep it energized and focused. COP has benefitted from direction by mentors, coordinators, and mock trial judges over those 14 years. The CLS chairs over that time period have always appreciated and supported this work. Deans Dan Stokols, Ron Huff and Val Jenness have always been very supportive

I am humbled and honored by this award. There are many hard-working and insightful UCI colleagues who have done as much and more in the various areas of service than me. I appreciate being in a similar category to Jim Danziger, Willie Schonfeld, and the others so honored. My partner Maya Dunne and our children Paul and Kara have always supported my commitment to these programs and principles. As a scholar who has written about gambling for several decades, I realize that I have been very lucky in the twists and turns and moments of opportunity and decision in my life and career. I certainly have been fortunate to serve in a School and with colleagues who have emphasized service.

## Distinguished Faculty Award for Teaching

Mahtab Jafari

Associate Professor of Pharmaceutical Sciences

I started teaching when I was in 5<sup>th</sup> grade at Hadaf Elementary School in Tehran. I tried –very hard- to convince my science teacher to allow me teach some of her lectures but she thought I was not old enough. Instead, she assigned me as a “special teacher” to the classmates in need. I started teaching an ad-hoc science class of 5 students at 7 am two days per week. This interest in teaching was sparked in me at a young age because I watched my mother’s interaction with her students and how much she enjoyed teaching. She was a professor of history at the University of Tehran. I have always been fascinated with all fields of science, but after taking chemistry and human physiology in high school, I decided to pursue a degree in pharmaceutical sciences with immediate applications to human health. I learned that this field is called “Clinical Pharmacy”.

After graduating from high school, Lycee Masena in Nice, France, I moved to the United States, majored in Chemistry as an undergraduate at Georgia State University, and eventually received my doctorate in pharmacy (Pharm.D.) from UCSF School of Pharmacy. Following graduation, I completed a residency program in Clinical Pharmacy and joined the faculty at UCSF School of Pharmacy as an Assistant Clinical Professor. Due to family reasons, only after two years in this position, I moved to Southern California and joined College of Pharmacy at Western University of Health Sciences as a founding faculty member. During my years at Western University, I also had a joint clinical faculty position with the Division of Cardiology at the School of Medicine at UCI and developed and directed the Cholesterol Clinic and co-developed a Cardiovascular Risk Reduction Program. In 2002, I joined Abbott Laboratories as a Research Scientist in the Neuroscience department. At Abbott Neuroscience, I lead studies on metabolic complications of CNS drugs and eventually became a Senior Research Scientist. In my last position at Abbott, I led a team of 10 medical scientists. With this new management position, my field of research changed from cardiovascular pharmacotherapy to the immunomodulation properties of Vitamin D analogues. During my tenure at Abbott, I continued my academic affiliation with UCI.

Although, my interest in teaching started in elementary school but the real epiphany happened in my undergraduate years when I worked as a tutor. My most challenging student was Sok, a student with cerebral palsy who was very determined to finish college. I helped him with his mathematics and physics courses. He in turn taught me that every student has the potential to succeed. I still have the plaque he gave me in my office. He received this plaque when he won 1<sup>st</sup> place in the Special Olympics.

In 2005, I came back to UCI and developed an undergraduate degree in Pharmaceutical Sciences. In this new position, I shifted the focus of my research from clinical and drug studies to screening and evaluating anti-aging compounds. In my laboratory, we use human cultured cells, fruit flies and mice as our model systems to identify anti-aging compounds and botanicals and evaluate their mechanism of action. One of the main reasons that I left Abbott and came back to UCI was that I missed classroom teaching. I currently teach two courses at UCI, Molecular Pharmacology and Life 101. I want my students to become lifelong learners, to think critically, and to choose a career that they are passionate about. I feel privileged to have a career that allows me to interact with young minds, to learn from them, and to be inspired by them and I feel honored to receive this teaching award.

## Distinguished Assistant Professor Award for Teaching

**Sarah Eichhorn**  
**Lecturer of Mathematics**

As the daughter of a teacher, I basically grew up in the classroom. After school, when the other kids went home at the end of the day, I hung out in my mom's classroom and played teacher. I guess I always knew I liked teaching and I am glad I now have a career which gives me the opportunity to instruct bright young students.

I discovered I loved mathematics fairly early. At first I liked math because it came fairly easily to me, but once I got to college I really enjoyed the sophistication and beauty of the more advanced topics and loved struggling through a tough problem. In 2004, I earned a PhD in Applied Mathematics from the University of Arizona. My dissertation involved the study of instabilities in planetary tidal deformations using linear and nonlinear elasticity theory. Specifically, I sought to use information about tidal heights to help infer the interior composition of Europa, one of the moons of Jupiter, which is believed to have an ice shell covering a liquid water ocean. In addition to planetary elasticity, I have also done published research work in data assimilation for shock-wave dynamics and Doppler effect physics lab design. My current research interests include combinatorial game theory and assessment of innovative instructional practices in mathematics courses, and more generally in hybrid/flipped or online courses.

Teaching is definitely my main professional passion. I have been fortunate to have had the opportunity to design and teach courses using a wide-range of instructional techniques, including traditional lectures, small seminars, independent studies, technology enhanced classes, flipped classes, online courses and I have even taught an algebra and a PreCalculus MOOC through Coursera to over 84,000 enrolled students. I have taught mathematics courses from introductory courses through graduate courses. I have also taught mathematics education courses and have led teaching seminars for faculty and graduate students. In all of my teaching activities, I am continually questing to find ways to improve my instruction and discover the best ways to lead my students to understanding.

In the past six years, I have had the opportunity to advise over 50 undergraduate students in research. I currently help lead two NSF funded undergraduate training and research programs, one in computational applied mathematics and one in mathematical biology. I find undergraduate research advising to be among the most rewarding teaching experiences. There is something incredibly satisfying about seeing a student transition into the role of researcher as they start formulating conjectures, designing investigations and producing original results. I have been repeatedly impressed and inspired by my research students as they tackle interesting problems and take their first steps into the role of professional mathematicians.

I am currently Assistant Vice Chair for Undergraduate Studies in the Mathematics Department. In this role, I am involved in multiple education administration projects including instituting coordination and a common final exam for UCI calculus courses, creating a "Future Mathematics Faculty Program" for professional development of our graduate students, serving as faculty lead for the secondary mathematics teacher preparation program and directing our major assessment committee. In 2013, I began a split appointment in the UCI Distance Learning Center, where I enjoy working as a course designer, instructional researcher and OpenCourseWare website manager. I really like how I can shape the educational experience of a broader group of students beyond my own classes through these administrative activities.

I am very grateful for this honor and would like to warmly thank the Senate for recognizing my instructional efforts.

## Distinguished Mid-Career Award for Research

**Paul Dourish**  
**Professor of Informatics**

I encountered my first computer – at the time, rare things indeed – in high school, where one of my teachers had recently bought one of the first-generation microcomputers (a Commodore Pet 2001, for those who care about these things). I became instantly enamored of the practice of programming and of exploring the device's capabilities. But I was interested, too, in how the computer could teach us something about other areas of human experience – topics such as intelligence, language, sociality, cognition, and philosophy. As an undergraduate, I studied artificial intelligence and linguistics alongside computer science in order to understand this better. These interests in the relationship between digital technologies and human experience blossomed in my first job after graduating, at a research center which combined computer science, psychology, and sociology in order to understand and explore social systems in a digital context. Over time, this topic – the culture of digital media – has become the central research concern for my research.

That our world is suffused with information technology and with its effects is both undeniable and obvious. However, understanding how these relate to each other is challenging. The single biggest misconception that bedevils our understanding of that relationship is the “social impacts fallacy” – the idea that the central relationship is one in which technology introduces some change, and society responds. This is true, of course – it happens – but it leaves unasked the critical question, where does technology come from? Well, it's created by people and universities and corporations. And what are people and universities and corporations? They are society! So society does not simply respond to technology – it also conceives of technology, creates technology according to imaginations and desires, chooses the technology it wants, and imagines future worlds with technology in them. So this is one reason that thinking about “impacts” doesn't tell the whole story. The second reason is that social change is not simply dictated by the technology itself, but rather by how we choose to use it. The history of technology, from the printing press to the telephone to text messaging, is filled with cases of unexpected adoption – people using technology in radically different ways that its inventors had imagined. What matters is not what technology does so much as how we interpret it and what we imagine that it does for us; the meaning of a technology isn't “designed in” but is something that arises only once we put it to work for us.

The question of just what this looks like and how we understand it is the question that lies at the center of the research that I and my colleagues conduct. We use methods and theories drawn from different places – from anthropology, from media studies, from science and technology studies, and from critical humanities – to understand digital technology as a site of cultural production and engaged human practice. This research has led us to many different people and places in the world – to deep space scientists in Pasadena, to new media activists in Shanghai, to designers in New Delhi, and to aboriginal knowledge authorities in Arnhem Land, amongst others – to look in detail at how technology is incorporated into their lives, not as something alien and disruptive, but as something that makes sense to them in terms of their own systems of practice and meaning. UC Irvine has been an outstanding place to do this. The university's commitment to interdisciplinary collaboration, the richness of the intellectual community, the flexibility of the academic programs, and the outstanding level of accomplishment of the student body, have all made UCI a hugely rewarding place to ask the questions that motivate me.

It is an honor to receive this recognition from the Academic Senate, and one that I accept not simply on my own behalf, but on behalf of the remarkable and inspiring group of students and collaborators with whom I have been lucky enough to work over my years at UCI.

## Distinguished Assistant Professor Award for Research

### Kevork Abazajian Associate Professor of Physics and Astronomy

I grew up in the suburbs of Houston, Texas, minutes away from the Johnson Space Center. As a young child going on regular field trips to the Space Center, I became fascinated by the displayed moon rocks and by NASA's space program more generally. This interest led to my avid reading of modern physics and cosmology popular science books, shifting to my academic training eventually leading to my Ph.D. in cosmology and astrophysics at the University of California, San Diego.

Much of my research has focused on the nature of cosmological dark matter, which comprises about 85% of the matter in the Universe. Dark matter was discovered from its gravitational effects 80 years ago, but its composition remains unknown. A significant part of my graduate work involved researching a candidate for cosmological dark matter, the sterile neutrino. My work examined both how this dark matter is produced in the early universe, and how this production mechanism leads to its ability to be detectable in X-ray light today.

From 2001-2003, I was a postdoctoral researcher in the Theoretical Astrophysics group at the Fermi National Accelerator Laboratory, where I joined the Sloan Digital Sky Survey collaboration, which is the largest survey of galaxies in the Universe to date, and is ongoing. The main galaxy sample contains about one million galaxies, and surveys them to a distance of 5 billion light years from our Milky Way Galaxy. The survey data has led to a quantified understanding of how the largest scale structures in the Universe grew from initially small perturbations from the early Universe, and have constrained the masses of the neutrinos, the smallest known particles. From 2003-2006, I moved to the Laboratory Director's postdoctoral fellowship at Los Alamos National Laboratory, where I applied their extensive supercomputer facilities to calculating the statistics of the nonlinear regime of cosmological structure formation. I also continued working with sterile neutrino dark matter models, including their effects on cosmological structure and their signals in X-ray telescopes. From 2006-2011, I was a faculty member in the Department of Physics at the University of Maryland, College Park. I received the National Science Foundation CAREER award for young faculty in 2010. At Maryland, I continued research on neutrino cosmology and started working with constraints on and potential signals of the leading candidate for dark matter, the weakly-interacting massive particle, coming from the 2008-launched *Fermi Gamma-ray Space Telescope*.

I joined the very active Center for Cosmology in the Department of Physics & Astronomy at UCI in 2011. Since then, I have continued working on neutrino cosmology and galaxy statistics, as well as the signals and constraints on dark matter from the Fermi observations of the gamma-ray sky. In 2012, UCI Prof. Manoj Kaplinghat and I showed that a signal from the brightest source of dark matter gamma-rays, the Galactic Center, was highly statistically significant, with the right rate, spectrum, and shape to be consistent with dark matter, though it could not yet robustly be disentangled from potential astrophysical sources. This result was featured in *Science Magazine* news, and in the top 10 findings of the year 2012 by *Discover Magazine*. Future work will be able to determine whether this is a "conspiracy" of astrophysical sources producing such a signal, or whether this is the first detection of dark matter beyond its gravitational effects.

## Distinguished Faculty Award for Research

### Barbara Doshier UCI Distinguished Professor of Cognitive Sciences

I have lived a charmed academic life—most of all because in each of my academic institutions I have been privileged to have fabulous colleagues and a stimulating intellectual environment. As a psychology major at UCSD, I experienced a young and vibrant campus with faculty who later became luminaries of their fields in cognitive science. At the University of Oregon—one of the first cognitive psychology PhD programs in the country—my advisor Wayne Wickelgren and other faculty were pioneers in mathematical and cognitive neuroscience approaches to human cognition. I had the fortune to go directly from graduate school to Columbia University, where I was on the faculty for fifteen formative years before moving to cognitive sciences at UCI.

In addition to having wonderful colleagues, I have also had the freedom to follow my interests as they developed. My early work focused in human memory and cognition, which led to work on short- and long-term memory and memory retrieval. My work today focuses on human visual processes, attention, and perceptual learning and uses detailed visual testing with devised stimuli and quantitative modeling of human signal processing and learning. The goal of this research is to understand attention improves perception and how we become visually expert through experience or training.

At the same time, I have served as Chair of the Irvine Academic Senate, Chair of the Department of Cognitive Sciences, and Dean of the School of Social Sciences for more than a decade ending 2013. I am a past president of the Society for Mathematical Psychology, have been on the Executive Board of the Vision Sciences Society. I am a fellow of the Society for Experimental Psychologists, the American Psychological Society, and the National Academy of Sciences, and a recipient of the Howard Crosby Warren Medal of the Society for Experimental Psychologists.

My relationship with UC Irvine dates back some 30 years, from the time when as a young undergraduate I drove up weekly for a quarter to attend a graduate seminar led by the distinguished mathematical psychologist R. Duncan Luce. So it seemed something of a return when I joined the Cognitive Sciences department at UCI in 1992. This is a department of extraordinary colleagues and great collegiality. It was also at UCI that I began the long and fruitful research collaboration with Zhong-Lin Lu, now at the Ohio State University. And finally, I would not have been able to do both research and administration without the support of extraordinary staff.

I am honored to be given this award and wish to thank the UCI faculty community, my extraordinary colleagues in Cognitive Sciences, and the students and postdocs in my laboratory.