# **Psychology & Neuroscience News**

# Jerry Rudy Named New Department Chair

College Professor of Distinction Jerry Rudy was named the new chair of our department beginning July 1. Our previous chair, Professor Theresa Hernández, has become the associate dean for research in the College of Arts and Sciences at CU Boulder.

This is the second go-round for Professor Rudy, who previously served as department chair from 1995 to 2003. Since then, he has served a term as the associate chair for faculty development and has been the director of our undergraduate neuroscience program. Professor Rudy also served as the interim associate dean of sciences for the College of Arts and Sciences, and chaired the Boulder Faculty Assembly Budget and Planning Committee for several years. He is well known for his love of teaching, and his classes are popular among students. His years of research and teaching in the department culminated in his widely used textbook, *The Neurobiology of Learning and Memory*.

Professors Rudy and Hernández spent much of the spring and summer finalizing their transition, which allows Professor Rudy to be up and running for the fall semester. Professor Hernández says she's tremendously excited about Professor Rudy serving as chair. She describes the process of passing on the baton as "enjoyable and seamless," partly due to the personal qualities her successor brings to the job. "He's highly collaborative, willing to work hard and so knowledgeable that even if a process is new to him, the end goal is not. He knows what we're trying to accomplish," she says. "He has both a pragmatic, action-oriented view of how we conduct business and also sees beyond that to the broader vision of the department and the impact we can have on campus and beyond."

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This impression of the new chair is shared by another former department chair, Professor Lew Harvey, who has known Professor Rudy since he first arrived in the department in 1980. He believes that Professor Rudy's previous experiences will benefit the department greatly in a second round as chair. "He knows all the key administrators from all levels of the university, from the chancellor on down. He has good working relationships with a wide variety of people and is well known and appreciated around campus. I believe he's perceived as a person who means what he says, has integrity, and likes to think things through."

Perhaps most importantly, many know Professor Rudy as someone who takes great pride in the accomplishments of the department and is committed to seeing the department prosper. As Professor Harvey says, "With Jerry, our department will have a very good shot at nurturing a shared vision of how we should grow."

# Message from the Chair

As I write this "message" I find myself feeling somewhere between amused and surprised. After 36 years at the university and previously serving an eight-year term as department chair (1995-2003), the last thing on my mind was another term. I was approaching retirement, winding down my university responsibilities, and outlining the next chapter of my life. However, sometimes plans get derailed, and I now find myself embracing the task of again leading the department.

For over 50 years the Department of Psychology has played a central role in

meeting the teaching and research missions of the university and our role increased enormously when two years ago our faculty created an undergraduate degree in neuroscience. This major is an enormous success, so that today the Department of Psychology and Neuroscience provides the curriculum and other services for approximately 500 neuroscience majors and 1,800 psychology majors. This is by far the largest number of majors served by any unit in the College of Arts and Sciences. The delivery of these two majors is a large and complex task made possible by the hard work and dedication of our faculty and supporting staff.

The University of Colorado Boulder is a major research institution and our faculty and staff make a major contribution to the research mission of the campus and the nation. Research is expensive and requires an enormous effort by our faculty to compete for the funds needed to support their efforts. I am proud to say that our faculty are enormously successful in this competition. For example, last year our faculty generated over \$10.5 million dollars to support their work. To put this number in perspective, this is 15% of the grant funds generated by all 30 units in the College of Arts and Sciences and ranks the department third behind only the Depart-



ment of Chemistry and Biochemistry and the Department of Physics. These funds not only support the basic research activities of the faculty, they also help fund the infrastructure that permits dozens of undergraduates each year to participate in cutting-edge research with the faculty and their staff—60 full-time scientists and research assistants.

In this context, I am excited to announce that our behavioral neuroscience faculty are moving into a new state-of-the-art research facility. This new facility, called "Wilderness Place," will be shared with

faculty from the Department of Integrative Physiology, allowing these faculty to maximize their potential.

I am fortunate that my predecessor, Theresa Hernández, was a wonderful chair. Teri raised the level of administrative professionalism of the department and put in place new practices that have dramatically enhanced our ability to deal efficiently with the complex operations of the department. We thank her for her service and wish her great success as she assumes her new role as the associate dean for research in the College of Arts and Sciences.



I am also fortunate that our current associate chairs for undergraduate and graduate education, Professors Irene Blair (left) and Tiffany Ito (right), have agreed to continue in



their respective roles. I look forward to working closely with them so that together we can lead the department to an even brighter future.

– Jerry Rudy

The alumni newsletter for the Department of Psychology and Neuroscience is published biannually and distributed to all alumni.

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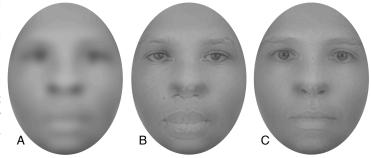
# **Research News**

### **Envisioning Race** by Associate Professor Josh Correll



Our lab studies the perception of race. We are interested in the idea that, when people encounter a member of a different racial group, they see this person as different and potentially threatening. To study this process in the lab, we present images of faces on computer screens-for just a fraction of a second—and ask people to make a variety of judgments. One of my students, Steffanie Guillermo, has found evidence of increased attention to both Black and Latino faces. And Chris Mellinger, another student in my lab, has shown that Black faces prompt people to misidentify innocuous objects as guns. Steff and Chris are currently using clever techniques to investigate the psychological mechanisms that generate these patterns of bias. We recently proposed a broad model of face processing that draws on our understanding of visual perception to explain racial bias. It suggests that our visual system is sensi-

tive to surprising aspects of faces, which alter the way we judge the people we encounter, often without our knowledge. In panel A of the image on the right, we present a modified Black male face. This is a representation of only the low spatial frequency information contained in the original face. We have reason to believe that our brains respond to that kind of information very quickly, and that it can alter the way we make sense of other information in a face. In panels B and C, the low-frequency information from that face has been combined with other



faces. Hold this page close, and look at the features in those panels. Do the faces look Black or White? Now squint your eyes at the image (or better yet, prop the page somewhere and walk about 10 feet away to look at it). What changes do you notice? We are using this kind of image to explore the way our brains interpret and react to race.

### Individual Differences in Executive Functions by Assistant Professor Naomi Friedman

Why are some people seemingly always in control of their behavior, but others often distractible and ruled by their impulses? From the perspective of cognitive psychology, such variation in part reflects individual differences in executive functions—cognitive processes that help us regulate our thoughts and actions to help us achieve our goals. In my lab we investigate the nature of these individual differences and how they relate to everyday behavior and psychopathology.

Executive functions include many different abilities, such as stopping dominant or automatic responses, continuously updating information in mind (working memory), and quickly switching between different tasks. Individuals who are good at one of these executive functions tend to also be good at others (i.e., there is something common), but there are also distinctions. For example, some people can stop an unwanted response but have a hard time quickly switching

between tasks. One of my lab's findings, based on data from the Colorado Longitudinal Twin Study, is that a good deal of the normal variation in these abilities is due to genetic differences. Moreover, there seem to be some genetic influences that affect what is common to different executive functions, and others that only influence one executive function. Importantly, the genetic variance that is common to multiple executive functions in late adolescence and adulthood is related to all sorts of behavior and behavioral problems ranging from toddlers' self-restraint to late adolescent and/or adult procrastination, substance use, and psychopathology.

Some of our current research projects examine to what extent executive functions can explain why different psychopathologies (e.g., internalizing problems such as depression and externalizing problems such as substance use) tend to be correlated. We also are investigating the extent to which executive functions, measured with laboratory tasks, are really tapping the same variance as self-report measures of behavioral control (such as self-report or impulsivity questionnaires). Finally, a particularly exciting ongoing project is a large-scale functional magnetic resonance imaging (fMRI) study with our longitudinal twin sample that investigates the neural substrates of genetic individual differences in these executive functions and their relations to psychopathology.



## Professor Emeritus Update: Gary McClelland

Professor Emeritus Gary McClelland retired in 2013 after teaching in our department since 1974. He taught very popular classes including honors undergraduate statistics and co-taught a graduate statistics class for 29 years with Professor Charles Judd, affectionately known as "The Chick and Gary Show."

"A friend of mine in high school once asked me what I wanted to do for a living," Professor McClelland says when he recounts the beginning of his long teaching career. "I told him, 'I'm going to be a psychology professor in Boulder.' So I've wanted to do that for a very long time." Whether a premonition or just clear foresight, his imagination materialized with precision and stood the test of Professor McClelland biking in Paris while traving job-I got paid for doing what



time for 40 years. "It was an amaz- eling to teach at the University of Konstanz in Germany.

I wanted to do," he says. "I pursued the research I wanted to do and taught the courses I wanted to teach."

After being so aligned with his career, the prospect of retirement initially raised some questions for him. "When it came time to retire and no longer be in that role, I thought 'Who am I?"" he remembers. "Because that's all I ever wanted to do." He realized that he didn't have to give up the parts of his teaching career that he enjoyed the most. "Some people retire and leave their work entirely but I decided to keep doing the things I liked about my job," he says. "I still write journal articles on various topics, mostly statistical methods. I'm still doing workshops and giving talks at other universi-



With biking friends just before starting on their climb up the Col du Tourmalet in France last summer.

ties and guest lectures here. And I'm still working on applets."

The applets Professor McClelland refers to are little applications using interactive web-based graphics. They usually perform one particular task and can be used as a supplement to textbooks or courses online. The applets he's been developing are meant primarily for undergraduate and graduate students learning statistics. He recently wrote 75 interactive applets that will soon be integrated with a popular statistics textbook via the publisher's website (samples are available at http://psych.colorado.edu/applets). He says he's been interested in this technology for a long time. "I was motivated by a grad student in the 90's in my statistics class who asked, 'Can't we have more pictures?' I realized that when I looked at equations, even as I

was putting algebra on the board, I was always seeing pictures. Ever since then, I've been interested in providing interactive graphics for teaching statistics so that students could see and interact with the pictures." In 2000, he published Seeing Statistics, an online textbook that included many applets in the form of interactive graphs. He has been creating new applets ever since.

"Interactive" is the keyword for him. "There are graphics that are pre-formed animations and there are graphics that students can interact with. I refer to the animations as 'lean-back education' and the interactive graphics as 'lean-forward education.' Interactivity makes students active participants instead of just watching. They're engaged with the graphic and can experiment with it and explore it in ways you're not able to if it's a pre-formed animation."

Never one to sit around idle, Professor McClelland frequently travels to Europe for visiting positions at the University of Deusto in Bilbao, Spain, and the University of Konstanz in Germany, which gives him a good excuse to bike around Paris, one of his favorite activities wherever he ends up. In fact, he celebrated his 68th birthday last summer by doing a Tour de France beyond category climb, riding his bike up the Col du Tourmalet in France with a bunch of friends. The climb was only 12 miles, he says, so not very far, but very steep: it climbed over a mile and took several hours to finish. How did that birthday ride turn out? "It was very satisfying," he says succinctly. Much like the rest of his life.

### Alumni Spotlight: Todd D. McIntyre (PhD '86)

Todd McIntyre (PhD, class of '86) believed he had a debt of gratitude to repay. Getting his BA, MA and PhD at CU Boulder changed the course of his life and set the stage for his future achievements. Recognizing this, he wanted to give back. He and his wife decided to bequest \$500,000 to fund five annual undergraduate scholarships for students studying neuroscience in our department. "We wanted to fund undergraduate scholarships because graduate students have more avenues for funding, but also to recognize that studying neuroscience represented an opportunity for undergraduates to begin learning how to synthesize the facts they were learning in multiple classes," he says. "We wanted the

scholarships to act as a catalyst for students that might have a nascent interest in the brain and behavior."

When Dr. McIntyre saw that our department had established an undergraduate neuroscience degree, he wanted to help maintain the momentum of this new program. He believes that having support in place for the undergraduate neuroscience program will make it easier for students to pursue graduate school, achieve a career in neuroscience, and make contributions to the field. And this happens to be a field he's passionate about. "The brain and how it drives human behavior is the most interesting thing we can study," he says. "It's the ultimate interesting question."

His fascination with neuroscience and human behavior led him to the field of neuropharmacology during his doctoral program. "I was able to come up with creative research ideas," he says about his research in neuropharmacology during that time. "I had interesting scientific problems in my head that I wanted to work out." As a post-doctoral fellow at the National Institutes of Health (NIH), he was able to continue his doctoral research on the molecular mechanisms of alcohol and drug abuse.

His work at NIH helped him realize that he wanted to make a difference in terms of ameliorating psychiatric and neurologic diseases. After his fellowship, he joined the pharmaceutical industry as a senior scientist specializing in pharmacology and toxicology. He moved on to work in regulatory affairs for various drug companies, helping them gain FDA approval for well-known central nervous system drugs including Risperdal, Consta,



Invega, Effexor, Pristiq and Razadyne, which treat schizophrenia, bipolar disorder, major depressive disorder and Alzheimer's disease. He is now vice president of regulatory affairs at DURECT Pharma, which specializes in developing new formulations of existing drugs. For example, they are currently working on novel formulations for opioids that will significantly deter abuse.

Although he has many professional achievements to his name, Dr. McIntyre initially struggled to find his way academically. Diagnosed with attention deficit disorder (ADD) as a child, he wasn't a good student in high school. "Having ADD, I was

always behind in my knowledge and abilities and had to work extra hard to compensate," he says. "That actually ended up being a motivation for me to achieve what I did in school and in my career." As a young adult, he had to take his time progressing through school: he went to a community college before coming to CU and then took time off after getting his undergraduate degree. At CU, he adapted his learning style to a rate he was comfortable with and says he "learned how to learn" in the process of obtaining his three degrees. He also found mentors in our department who made a significant impact by helping him get his bearings in academia and gain the critical thinking and communication skills that he uses to this day.

Such memories of his progress at CU are central to his decision to support neuroscience students in our department, hoping that they, too, will "learn how to learn more efficiently and to think in scenarios and contingencies." He relates this to a lesson learned from his own father. "My father only had an eighth grade education but he was a great chess player. He taught me to play chess when I was four or five years old. Chess teaches you to think in multiple scenarios, each with multiple contingencies. The role of a university should be like that-teaching more than facts. It should teach students to learn how to think in multiple contingencies, and how to learn for the future once their professors stop teaching them." Dr. McIntyre believes that his bequest can further this learning process. "If these scholarships help this process for several students each year at CU Boulder," he says, "then we will have achieved our objectives."

# Highlights from Alumni News on our Website

Alumni who sent us updates over the past year are listed below. You'll find a full account of their news, as well as updates submitted by other alumni over the years, on our Alumni News website (psych.colorado.edu/alumni-news). For login information, email psychology.news@colorado.edu.

### 1950s

**Pierre M. Hartman (BA '58)** worked after graduation as a management intern at U.S. Air Force headquarters and then became an officer in the Foreign Service. He followed that with 25 years as a practicing attorney.

Vince Ceriello, MPS (BA '59) was president and CEO of VRC Consulting Group for 30 years. He retired in 2006 and moved to Rogue River, Oregon. He is now CEO of the 900-member Medford Senior Center.

### 1970s

**Raymond M. Bergner (PhD '73)** is a faculty member in the Department of Psychology at Illinois State University. He has also practiced clinically and published in a wide variety of areas.

**Peter Hornbein, MSEd (BA '75)** is working on a PhD in math education at CU Denver. He retired from secondary teaching in May 2016 after 27 years in the classroom in order to pursue his PhD full-time.

James H. Waters (PhD '76) practices clinical and forensic psychology and neuropsychology, as well as writing and presenting. His current interest is in the integration of neuroscience and psychology.

**Marcey Berman, MSEd (BA '78)** received a master's in special education in 1988 and has been teaching ever since. She also received a second BA in interpreting and freelances as a sign language interpreter.

Mary Maddison Bradford, LCSW (BA '78) retired from her work as a clinical social worker, including service in the Army Medical Corps Reserves. She lives in Louisiana and still maintains her social work license.

#### **1980**s

Joan Stassel, MSPT (BA '81 Psych & PE) is living in her home state of Alaska, is married with a 17-year-old daughter, and practices physical therapy part-time. She is also active in the Alaskan outdoors.

**Richard J. Tremaine, MBA (BA '83)** was recently named associate director of the VA's Eastern Colorado Health Care System, with responsibility to activate the new medical center in Aurora.

Marcy Cooper, MD (MA '84) went to medical school on the east coast and then returned to Colorado; she's been back for 17 years now. She is a child and adolescent psychiatrist in private practice in Louisville. Shari Deuschle, PharmD (BA '84) is a consultant pharmacist in Northern Colorado specializing in geriatrics and psychology. She tries to balance work with enjoying her family and activities in Colorado.

**Denise (Conley) Thurling, MD (BA '89)** lives on Sanibel Island, Florida, and has been an emergency medicine physician for the last 15 years in Fort Myers, Florida.

Stephen Kosmicki, LCSW (BA '89, Psych & International Affairs) is the program director at Project Renewal's Clinton Residence in New York City. He is also studying to become a certified psychoanalyst.

Keith E. Sealy, MA (BA '89) is a senior software designer and product manager at Accruent. He lives in Austin, Texas, with his wife Robynne and two of their children; their married daughter lives in Missouri.

#### 1990s

**Keri (Ronkin) Werner, MA (BA '90)** received an MA in applied physiology from Chicago Medical School in 1993. She now lives near Chicago with her husband and two children and works as a certified personal trainer.

**Maryruth Eaves-Herrera (PhD '91)** worked as a forensic psychologist and maintained a private practice. She now lives with her husband on the scenic Hamakua coast of the Big Island of Hawai'i in the town of Hilo.

**Rebecca A. Fosha, MA (BA '96)** is pursuing an MS in human systems integration at the Naval Postgraduate School and is slated to work on the human systems integration team at the U.S. Coastguard Headquarters.

Meredith Scully, EdM, MSW (BA '96) founded Cottonwood Day School in Bozeman, Montana, a private non-profit K-3 school for students with learning disabilities (www.cottonwooddayschool.org).

**Brad Simpson (BA '99)** and his wife own a business called The Lavish Loo (www.thelavishloo.com) specializing in luxury portable restrooms for outdoor events and weddings. They live in Arvada with their two boys.

**Catherine Tasche Cirulli, PsyD (BA '99)** is in private practice as a licensed psychologist and is the founder of a personal development website, PsychSavvy.com. She lives in Denver with her husband and their daughter.

### 2000s

**Brandi (Paeplow) Vos, EdS (BA '02)** is a nationally certified school psychologist (NCSP) working at Douglas County High School in the Douglas County School District and is a crisis team leader in the district.

Jessica Verdicchio, DSW (BA '02) earned her doctorate in social work from Rutgers University in 2015. She is currently a school social worker and maintains a small private practice in Hohokus, New Jersey.

Adam Bornstein, MAMC (BA '04) directed readers to see his entry on Wikipedia for an update on his life: https://en.wikipedia.org/wiki/Adam\_Bornstein

**S. Joy Fox, PsyD (BA '04)** has her own psychological assessment business, Fox Psychological Assessments of Denver, and works with sex offenders at Specialized Offender Services.

Lauren Bishop-Fitzpatrick, PhD, MSW (BA '06) will begin a tenure-track assistant professor position at the University of Wisconsin-Madison's School of Social Work in Fall 2017.

Meghan Brannick, PsyD (BA '07) works as a forensic psychologist at a state hospital in California, completing court-ordered evaluations and then providing expert witness testimony to the court and parole board.

Landon Mock, MA (BA '07) became the first personnel psychologist to be hired in the U.S. Department of the Interior's HR headquarters in November 2015. He and his fiancée plan to marry in September.

Jack Reasoner, MBA, MPA, CPM (BA '07) completed his MBA in healthcare administration in May 2016 and works as a healthcare administrator with Centura Health, a nonprofit Colorado healthcare provider.

**Bill Bonk (PhD '08)** is a senior research scientist at Pearson Knowledge Technologies, working on second language test development and analysis. He lives in Boulder with his wife Amy and their two boys.

**Inbar H. Brenner, MA, CWC (BA '08)** became a certified wellness coach, and recently started her own business offering coaching and counseling services promoting wellness and healthy behavior change.

William F. House, MD, MS (BA '09) is a family physician resident in the Hudson Valley region of New York and plans to move to the Puget Sound region of Washington when he completes his training.

### 2010s

**Shea Gilliam, MD (BA '10)** graduated from medical school at the University of Colorado School of Medicine in 2015 and is now doing his residency in emergency medicine in Colorado.

Alexandria Jones (BA '10) is currently earning her master's in counseling with a specialization in marriage and family therapy at Saint Mary's College of California. She is set to graduate in May 2017.

Laura Houd, MA (BA '11) works full-time as a crisis clinician for Rocky Mountain Crisis Partners and Colorado Crisis Services. She is working toward becoming a licensed professional counselor in Colorado.

Hannah Myers (BA '11) got her nursing assistant's license (NAC) and worked as a nursing assistant for two years in a rehab facility and hospital. She is now a BSN student at the University of Washington in Seattle.

**Christian Tucker (BA '11)** has worked in church settings and is currently looking for a job or possibly education in the ministry. He is also interested in going to graduate school for political science.

Frederick "Taylor" Lynch (BA '12, Psych & IPHY) is currently a first-year medical student at the University of Colorado School of Medicine.

John Mohammadioun (BA '12) is in the graduate PsyD program at the Wright Institute in Berkeley, California. As part of his clinical placement, he is working as a therapist at a cognitive behavioral therapy clinic.

Thomas Powers (BA '12) currently does operations management and consulting for eCommerce businesses, mainly in the housewares industry.

Hannah Snyder (PhD '12) was a postdoctoral fellow at the University of Denver. She recently moved to Boston to start an assistant professor position at Brandeis University.

Lance Taylor, JD (BA '12) graduated in May 2016 from the University of Michigan Law School and has returned home to Colorado to study for his bar exam.

**Danielle Dunsing (BA '13)** is currently working as a long-term care case manager with a company called Adult Care Management.

Jared Konner (BA '13, Psych & Music) is a first-year medical student at Nova Southeastern University College of Osteopathic Medicine and is interested in neurology and physical medicine/rehabilitation.

Elise Matatall, MSW (BA '13, Psych & Women and Gender Studies) recently started a position as a trauma-informed school-based therapist and prevention specialist with an agency serving Northwest Detroit.

Erin Sanders (BA '13 Psych, BS '13 Journalism) recently started a new position as executive director for CU's Alumni C-Club, heading up CU's athletic alumni association.



### Visit our Alumni News website for updates from alumni who sent us news.

To find the Alumni News website, first go to the department website at: www.colorado.edu/psych-neuro

Under **Quick Links** (bottom of the page): Click on **Alumni Resources**, then click on the **Alumni News** link.

For login information, email psychology.news@colorado.edu.

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- Your degree(s)
- The year that you graduated from CU

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- Professional activities
- Family news
- Other activities of interest
- Insights into how your CU degree has helped to shape your life and work

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Stained glass window in Macky Auditorium at the University of Colorado Boulder

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