

UC**DAVIS**Center for
Neuroscience







The Center for Neuroscience (CNS) was established 30 years ago as the first interdisciplinary research center at UC Davis and one of the first of its kind in the country.

Although 30 years doesn't sound like that long to many of us, the accomplishments in the field of neuroscience during this period have been phenomenal.

Thirty years ago, we understood almost nothing about how the brain works. Neuroscience was just starting to become its own field, and the tools to study brain function were only starting to be developed.

CNS faculty were among the early trailblazers in neuroscience, including our first center director, Michael Gazzaniga, who started the field of cognitive neuroscience. Today, our faculty continue to be at the forefront of developing and applying the tools to study brain function and connectivity and leveraging these discoveries to advance treatments and transform technologies to improve lives.

The CNS 30th Anniversary Impact Report is a snapshot of our accomplishments in research, training and public service.

The Center's success over the past 30 years is deeply rooted in our unique infrastructure, our interdisciplinary approach to neuroscience and the unwavering dedication of our faculty, staff, trainees and philanthropic partners. Thank you for your support!

We look forward to celebrating many more successes with you in the years ahead.

Sincerely,

Kimberly M. allister

Kimberley McAllister, Ph.D.

Director, Center for Neuroscience

### **DISCOVERY-DRIVEN RESEARCH**

Over the past 30 years, CNS research teams have made discoveries with global impact aimed at developing new treatments and therapies that will improve the lives of people worldwide. From mental health to healthy aging, and from the molecular origins of learning to the wearable tech helping people enhance memory, CNS researchers are pushing the horizons of knowledge in the following key areas for comprehensive brain health:



#### MEMORY, PLASTICITY AND AGING

CNS labs have made discoveries about the specific brain regions and circuits that mediate memory and the molecules that allow connections to store memories. They are now using that knowledge to develop strategies to enhance memory, to restore it and even prevent disabling neurodevelopmental disorders, including autism spectrum disorder and degenerative diseases like Alzheimer's disease.

#### **BRAIN DEVELOPMENT**

CNS faculty are involved in researching developmental and behavioral disorders at multiple levels. From understanding the molecular, cellular and circuit changes of brain development, to how genetic and environmental factors confer risk for mental health conditions, our scientists aim to translate their research findings into new approaches to improve brain disorder diagnosis and treatment.

#### SENSATION AND PERCEPTION

CNS faculty have made seminal discoveries about how we perceive the world, including through vision and hearing. Their findings are leading to new ideas for how cells and circuits that mediate these senses can be altered to enhance perception and develop better treatments for vision and hearing loss.

#### Rishidev Chaudhuri, Ph.D. Assistant Professor of Neurobiology, Physiology and Behavior; Mathematics

#### **BEHAVIORAL HEALTH**

CNS faculty are working to define the complex circuits that mediate attention, decision-making, executive function, motivation, emotion and reward. With this knowledge, they aim to develop strategies for better diagnosis, treatment and prevention of a range of disorders, including schizophrenia, depression, anxiety, bipolar disorder, ADHD and addiction.

UNIVERSITY OF CALIFORNIA

### **DISCOVERY-DRIVEN RESEARCH**

## 42 **CORE FACULTY**

Bring innovation and interdisciplinary approach to neuroscience research

## 2,000 **PUBLICATIONS**

Highlight novel discoveries and research productivity

## **AWARDS**

Recognize faculty research excellence and mentorship

#### \$256M+ **EXTRAMURAL EXPENDITURES**

Support research productivity

As the hub for interdisciplinary research, the Center for Neuroscience helped to establish the UC Davis Neuroscience Consortium, bringing together all the major centers and departments in neuroscience at UC Davis. With more than 300 faculty members addressing some aspect of neuroscience research, the Consortium is one of the strongest groups of neuroscientists anywhere in the world. Together, we are working to tackle some of the grandest challenges that our society faces as we move forward in the next 30 years. Learn more at ucdnc.ucdavis.edu.





## **ENGAGING THE COMMUNITY**

Educating and sharing exciting discoveries in brain research with community members is an important part of the CNS mission. We are proud to bring neuroscientists, students, families, schools and communities together through a number of outreach programs.

#### **VIRTUAL ENGAGEMENT**

The pandemic presented us with the opportunity to expand our reach. CNS faculty participate in numerous webinars and present their research to national and international communities worldwide.

#### **COMMUNITY OUTREACH**

In addition to NeuroFest, the CNS Community Outreach Fund, made possible by annual gifts from faculty, staff, alumni and friends, supports our K–12 education program. Faculty and graduate students bring neuroscience to the classroom, making presentations and providing hands-on learning activities to K–12 students at elementary schools throughout the Sacramento, Davis and Woodland regions.



## THE IMPACT OF PHILANTHROPY

#### 434 DONORS

Inspire and motive neuroscience excellence every day

# **\$4.9M**GIFTS FROM INDIVIDUALS

Help accelerate discoveries and train the next generation of neuroscience leaders

## 14 ENDOWMENTS

Provide enduring support for research, training and programs



First-ever at CNS, the C. Bryan Cameron
Presidential Chair in Neuroscience brings
prestige and scholarly support to outstanding
faculty who conduct research that benefits
human mental health.

### **CELEBRATING 30 YEARS OF EXCELLENCE**

CNS former directors, UC Davis leadership, faculty, staff, trainees and special guests celebrated the Center's milestone anniversary October 8, 2022, in the beautiful UC Davis Good Life Garden at the Robert Mondavi Institute for Food and Wine Science.

One of the highlights of the evening was the announcement that the main CNS building at 1544 Newton Court, Davis will be named the Robert D. Grey Hall in honor of Dr. Robert Grey, who established the Center in 1992. We are deeply grateful for Bob and Kathleen Grey's visionary leadership, support and generosity. The building dedication will be held in 2023.

































Scan below to see more photos taken at the CNS 30th Anniversary Celebration



The Center for Neuroscience is the interdisciplinary hub for neuroscience research and training at UC Davis. We conduct cutting-edge research at all levels of the nervous system, from genes to behavior and through all stages of life. We are committed to training the next generation of scientists and engaging the public in neuroscience research.

Our commitment to diversity, equity and inclusion permeates and elevates every aspect of our community.

Our mission is to reveal how the brain works and to leverage these discoveries to promote health, advance treatments and cures for neurological and psychiatric disorders and to transform next generation technologies to improve lives.

Learn more at neuroscience.ucdavis.edu.



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