THE IMPACT OF YOUR GIVING 2019
Driven by intellectual audacity, passion, and dedication to excellence, the UC San Diego Division of Biological Sciences has emerged as a global leader in academic scientific discovery, developing new generations of scientists by involving them in some of the most exciting breakthroughs of our time. I thank our visionary donors for supporting world-class education and research in pursuit of our shared goal of advancing scientific knowledge for global good.

WITH SINCERE GRATITUDE
The heart of discovery is innovation, vital to our instruction and our research. In keeping with this approach we embrace diversity and inclusion, and assess course content with a mind for the full range of capacities needed by today’s scientists, including ethics awareness.

Together, these strategic priorities are vital to addressing our planet’s grandest challenges. Transformative scientific technologies hold the promise of regenerating scarce environmental resources, advancing knowledge, and developing life-changing treatments for the ill.

We greatly appreciate the support of our alumni, friends, and partners who have helped make our achievements possible. Your continued investment in the biological sciences will further transform possibilities for progress into discoveries made and challenges resolved.

Kit Pogliano
Dean, Division of Biological Sciences

“My first year as dean has been truly exhilarating. I am deeply honored to engage with our exceptional faculty and students, who exhibit the intellectual daring, creativity, and entrepreneurial spirit that benefits San Diego’s expanding biotech sector.”
Philanthropic support has helped position us to embark on a future of limitless possibilities in scientific learning, exploration, and discovery that can transform lives.

PROFILE

WENDY W. KWOK ’99
Animal Physiology and Neuroscience

“UC San Diego welcomed me into their community when I was an impressionable undergraduate. This is where I cultivated my foundation, deepened my values and realized my potential,” says Wendy Kwok. Her most memorable experience as an undergraduate was when her lab instructor empowered the class with the freedom to pursue a single unique finding, instead of following the 10-week syllabus.

The instructor encouraged being open-minded, cognizant, patient, and confidently curious, which influenced Wendy’s approach to life.

“An effective way of learning is by doing thoughtful scientific exploration. I would like to provide a similar richness to current students and the future legacy,” says Wendy.

Being appreciative of the transformative power of doing hands-on research, she established three endowed funds providing support to undergraduate, master’s, and PhD students engaging in real-world research through the Division of Biological Sciences.

Helping others recognize and pursue their passion, making an impact for the greater good, motivates Wendy’s philanthropy. Giving to UC San Diego is an expression of gratitude for her. Wendy believes, “Every gift has a positive influence on student scholars, the university, our community, and the world. Having gratitude is joy-filled.”

Above: Wendy (center) and her mother, Joan Kwok, toured the new Tata Hall for the Sciences with Assistant Dean John C. Bauer.
The UC San Diego Division of Biological Sciences relishes science as an adventure, pioneering breakthrough discoveries that advance health care, manufacturing, and the environment.

**ACTIVE GENETICS**
CRISPR/Cas9 is a process of genetic engineering that enables selective editing. An enhancement of the process by UC San Diego biologists called Active Genetics accelerates the rate a new trait can be expressed in a population. Scientists in diverse specialties are exploring opportunities to use this technology to help people and the planet—eradicating the malaria parasite from mosquito populations, preserving crop yields, finding new targets for cancer therapies, and restoring the power of antibiotics.

**MICROBIOME**
Plants, animals, and humans have co-evolved as hosts to microbes for hundreds of millions of years, an interrelationship constituting a microbiome. Studies suggest our microbiomes influence our immune systems, metabolism, and a vast range of medical disorders. In partnership with peers across campus, UC San Diego Biological Sciences faculty can improve how organisms thrive by better understanding the tiniest species of our planet.

**UNIQUELY QUALIFIED FOR TRANSFORMATIONAL SCIENTIFIC DISCOVERY**

**Top 3**
Biological Sciences doctorate programs in the nation (National Research Council)

**8th**
In the nation, biology programs (U.S. News & World Report global rankings)

**6th**
In the world in biomedical sciences (academic rankings, Nature Index)
CRYO-EM
UC San Diego’s cryo-electron microscopy (cryo-EM) facility is a powerful resource for scientists across the Torrey Pines Mesa. Cryo-EM reveals the structure of proteins at an unprecedentedly high resolution, opening windows of observation and understanding into cellular events. Through direct observation, scientists can better develop therapies to disrupt damaging biological dysfunction and restore health.

NEUROBIOLOGY INITIATIVES
Members of our Neurobiology section helped create the White House’s BRAIN (Brain Research through Advancing Neurotechnologies) Initiative in 2013, catalyzing the development of brain-related technology through comprehensive mapping of neurons and their function. Since then, faculty have led the exploration of fresh concepts and energized our scientifically rich region through participation in the San Diego Brain Consortium, a regional incubator of applications-oriented neurotechnology.

INNOVATION IN PLANT BIOLOGY
Our planet’s resources become more vulnerable by the day, as the global population skyrockets and the changing climate threatens the food supply of millions. Desertification, fishery collapse, inundation, and extreme weather all threaten to limit food production. Plant biologists at UC San Diego lead understanding of the fundamental mechanisms of plant growth, maturation, and reproduction — vital keys to preparing for a rapidly approaching time of need.
OUR FACILITIES AND RESOURCES

300,000+
Square feet of research space, teaching labs, support space, and a multi-use biology field station with four arable acres and associated greenhouses and research space

105
Research laboratories, two research centers, four organized research units

PROFILE
MISCHE HOLLAND ’20
Biochemistry and Cell Biology

Seeking opportunities comes naturally to Mische Holland, who prefers they/them pronouns. As a freshman, they were accepted into UC San Diego’s rigorous Phage Genomics Research Initiative, and this summer attended Harvard Medical School’s Biomedical Informatics Summer Institute. Mische is active in the university’s chapter of oSTEM – Out in Science, Technology, Engineering and Math – a professional development organization for LGBTQIA+ students, and won the poster competition for research on antibiotic resistance at oSTEM National Conference 2018.

“It also connected me with the Academic Enrichment Program and started a great relationship with them, which has pushed me on to even more opportunities,” Mische says.

Philanthropic support has also fueled Mische’s academic pursuits. As a Triton Research and Experiential Learning Scholar and 2018 Eureka! Scholar, the third-year student has had access to unique opportunities, including a spot in the Nizet Lab along with credit on multiple research publications, a plus for graduate school application. Today, Mische can be found researching antibiotic drug resistance and playing viola in chamber music ensemble class.

For this musician-scientist with a quest for knowledge and a knack for navigating the rich array of campus resources, we anticipate a future of limitless possibilities.
At UC San Diego, challenging convention is our most cherished tradition, and your support of the Division of Biological Sciences ensures that we continue to open doors to new eras in science. Through your philanthropy, the Campaign for UC San Diego, our university-wide comprehensive fundraising effort, will empower the next generation of innovators to blaze a new path toward revolutionary ideas, unexpected answers, and planet-changing impact.

Learn more at biology.ucsd.edu/giving

Thank you for continuing the tradition.