Defining the Future of the Public Research University

The University of California, San Diego was founded in 1960 as a forward-thinking research institution for graduate and undergraduate study. Scripps Institution of Oceanography, founded in the early 1900s and now a division of the university, served as a catalyst and an incubator for UC San Diego’s initial growth. Early on UC San Diego attracted scholars of national renown, who initiated the unflagging momentum of exploration and innovation for which our campus has become known.

Today, UC San Diego has grown to encompass six undergraduate colleges and eleven divisions and schools. Our vision is to be a student-centered, research-focused, service-oriented public institution that provides opportunity for all. Named in the top 15 research universities worldwide and regularly recognized among the top 10 public universities in the nation, UC San Diego fosters a culture of collaboration that sparks discoveries, advances society and drives economic impact.

The campus offers a wide range of multidisciplinary education and research opportunities—from engineering, medicine and oceanography to the arts and humanities, and physical and social sciences. Our students, who learn from Nobel laureates, MacArthur Fellows and National Academy members, are as committed to public service as they are to their studies. The university has been consistently ranked first based on research, civic engagement and social mobility.

UC San Diego Chancellor Pradeep K. Khosla emphasizes, “As a public research university, our charge is to not only advance knowledge and produce knowledgeable and contributing citizens, but also cultivate inventors, spark new businesses, create jobs and serve as powerful economic engines of our local and state economies.”

With 20 percent of UC San Diego’s research portfolio funded by the private sector, collaborative research forms an integral part of the university’s overall strategy. The campus has had a significant influence on the broader economy, particularly in San Diego, listed in 2014 as one of the top three life science clusters in the United States. It is not a stretch to say that the development of the region’s biotechnology industry is based upon research conducted and subsequent spin-off companies from UC San Diego.

UC San Diego Health is committed to discovering cures, developing better treatments, training the next generation of physicians and scientists and delivering outstanding patient care to the community. Comprised of UC San Diego Health, UC San Diego School of Medicine and Skaggs School of Pharmacy and Pharmaceutical Sciences, UC San Diego Health has garnered international recognition as a place where discoveries are delivered—bringing breakthroughs from the research lab bench to patients’ bedsides.

In an effort to address prevalent and crucial issues affecting society and the world, the university’s strategic plan defines four multidisciplinary research themes on which to focus the unique and broad expertise of the campus. These areas—including the environment, human health, human knowledge and social disparities—are rich with possibility for innovation, education and training.
Chancellor Khosla says, “Our goal is to nurture and support a collaborative and interdisciplinary research culture that advances the frontiers of knowledge, shapes new fields and disseminates discoveries that transform lives.”

Guided by the four research themes, UC San Diego has made exciting breakthroughs. Following is just a sampling:

- **Understanding and protecting the planet**: Biologists and chemists partnered with the local San Diego surfboard industry to design the world’s first algae-based sustainable surfboard. Scientists are also investigating algae’s potential as a sustainable and commercially viable solution for food, biofuels and more.

- **Enriching human life and society**: At the Center for Wearable Sensors in the Jacobs School of Engineering, researchers have created a temporary tattoo containing electrochemical sensors that can monitor health, detect environmental pollutants, help discover explosives and more.

- **Exploring the basis of human knowledge, learning and creativity**: A new multidisciplinary project, the Institute for Integrative Science of the Developing Mind and Brain, will investigate the social, cultural and educational factors that contribute to the growth and well-being of children and adolescents.

- **Understanding cultures and addressing disparities in society**: Cyber archaeologists at the Center of Interdisciplinary Science for Art, Architecture and Archaeology (CISA3) at UC San Diego’s Qualcomm Institute are working to better understand and preserve cultural heritage sites around the world.

As a leading research university and academic powerhouse, **UC San Diego is an agent of change, spurring innovation and economic growth that addresses local, national and global challenges**. For example, Scripps Institution of Oceanography Distinguished Professor Veerabhadran Ramanathan, who serves on the Pontifical Academy of Science, recently imparted to Pope Francis that the worst consequences of climate change will be felt by the world’s three billion poor people—a message that helped shape the religious leader’s 2015 Encyclical on the Environment.

“As a public university, UC San Diego owes it to society to give back, to educate our next-generation leaders, to discover new knowledge, create new technologies and drive economic development,” notes Chancellor Khosla. “But increasingly, we must rely on private support to continue our impact on the community and the world.”

UC San Diego celebrated a record-breaking year of private support. The campus raised 20 percent more during fiscal year 2014-15 compared to the previous year, with over 43,000 gifts and grants totaling $177.5 million. Donors designated the largest amount of funding to research, with $87.8 million given for this purpose. Soon, **UC San Diego Health’s Jacobs Medical Center**—a 10-story medical specialty center made possible by private support—will provide **advanced surgical, cancer and women and infant care to the community**.

Chancellor Khosla adds, “We are redefining the future of education and research through our strategic plan and our transformational goals. Our mission enables us to educate our state’s youth, create a skilled workforce and re-pay our fellow citizens’ investment through economic development.”

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