

Defining the Future of the
Public Research University

UC San Diego

Enriching Human Life and Society

UC San Diego is renowned for its work to improve individuals' health and social well-being. Vibrant and collaborative research in the fields of medicine, engineering and the social sciences pushes disciplinary boundaries to alleviate disease as well as societal challenges that affect people throughout the world.



Alison Marsden, Ph.D.

Simulating Surgery

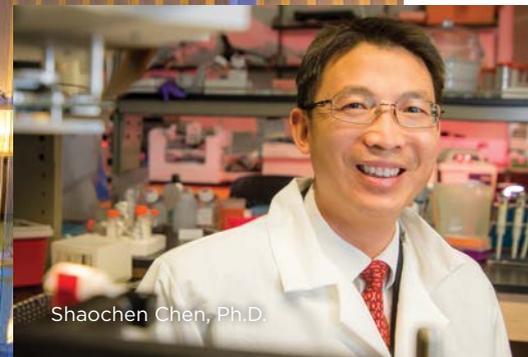
Congenital heart defects are the leading cause of infant mortality in the U.S. **Alison Marsden, Ph.D.**, professor of mechanical and aerospace engineering, has customized computer simulations of blood flow and heart vessels that physicians are using to test surgery designs before operating on patients. Marsden's pioneering research brings together aerospace and mechanical engineering and cutting-edge simulation technologies to improve surgery procedures, especially on the youngest and most fragile of patients.



Craig McIntosh, Ph.D.

Fighting Poverty and Disease in the Field

A development economist whose passion is being in the field, **Craig McIntosh, Ph.D.**, has conducted anti-poverty evaluations in Mexico, Latin America and Africa. He is currently investigating how to boost savings among the poor, whether schooling or cash payments can be used as a tool to fight HIV/AIDS, and ways to improve the long-term efficiency of agricultural markets.



Shaochen Chen, Ph.D.

Printing Tissue in 3-D

Professor of nanoengineering **Shaochen Chen, Ph.D.**, is developing a revolutionary technology to print three-dimensional human tissue. This bioprinting uses a computer projection system and precisely controlled micromirrors to shine light on biocompatible liquid polymers mixed with biological materials and stem cells. Chen's 3-D technique can print patient-specific tissue, enabling damaged tissue from a heart attack to be replaced by tissue engineered specifically to match the patient's body.



Anita Raj, Ph.D.

Taking on Child Marriage

In places where girls are commonly married before the age of 18, the rates of poverty, infant mortality and sexual violence are alarmingly higher than elsewhere in the world. **Anita Raj, Ph.D.**, director of the UC San Diego Center on Gender Equity and Health, is a leading researcher of child marriage. Testifying in congressional hearings, United Nations assemblies and in court cases worldwide, Raj has become a global resource.

Within the walls of the Medical Education and Telemedicine Building, opened in 2011, sophisticated technology supports hands-on simulations, team learning and distance education, as well as UC San Diego's thriving consultation practice in telemedicine.

#1 Among San Diego's adult hospitals:
UC San Diego Health System
2014-15 U.S. News & World Report "America's Best Hospitals" Issue

UC San Diego
Learn more at ucsd.edu.