

MEETING THE STANFORD CHALLENGE

STANFORD
2006 ANNUAL REPORT

Center was specifically designed to facilitate interdisciplinary research and teaching. The Bio-X Interdisciplinary Initiative Program, a venture fund for new multidisciplinary faculty collaborations, has helped lead to the success of Bio-X and created a model for subsequent initiatives. In 2006, 24 new interdisciplinary proposals received Bio-X funding for research into areas ranging from prostate cancer to stem cells to neuron signaling, bringing the total of funded proposals to 64. Funded proposals have, in turn, attracted about \$70 million in externally funded grants from an initial \$6-million investment.

Bio-X contributed to the creation of the **Bioengineering Department**, a joint program of the schools of Medicine and Engineering. The department fuses engineering and the life sciences to promote the development of biomedical technologies and therapies through research and education.

The department boasts a remarkable faculty. In 2006, Kwabena Boahen, associate professor of bioengineering, won a National Institutes of Health Director's Pioneer Award, which provides \$2.5 million over five years to pursue new research directions that are not already funded. This is the third year that a Bioengineering faculty member has won the award. Also in 2006, the Stanford Microfluidics Foundry was opened, headed by Bioengineering Professor Stephen Quake, to manufacture novel "labs on a chip" for academic researchers.

The Stanford Comprehensive Cancer Center, also part of the human health initiative, brings together more than 260 cancer specialists in such fields as developmental biology, imaging, genetics, cell transplantation, law, health policy, engineering, computer science and environmental studies. Center clinicians are involved in more than 250 trials of new diagnostic, prevention and treatment strategies. In 2006, the center received a major boost with a \$25-million gift from Stanford alumni Jill and John Freidenrich to aid in translational research in cancer and other diseases.



Roger Kornberg (left), the Mrs. George A. Winzer Professor in Medicine, won the 2006 Nobel Prize in chemistry, and Andrew Fire (right), professor of pathology and of genetics, shared the 2006 Nobel Prize in physiology or medicine. With them is Arthur Kornberg, who won the Nobel Prize in 1959.

The gift is one of the largest single contributions in the School of Medicine's history.

The Stanford Institute for Stem Cell Biology and Regenerative Medicine is a multidisciplinary research center that builds on a prestigious history. In the 1980s, Stanford researchers were the first to discover and isolate blood-forming stem cells. Stanford was the first institution to have successfully translated adult stem cell research discoveries into patient therapies.

In 2006, Stanford received \$1.2 million from the California Institute for Regenerative Medicine to train the next generation of stem cell researchers. In addition, the School of Medicine received \$20 million from the Virginia and D.K. Ludwig Fund to establish the Ludwig Center for Cancer Stem Cell Research and Medicine.

The Neuroscience Institute at Stanford advances well-being through multidisciplinary basic and clinical research into the biology of perception, memory, movement, emotion and other neurological functions to someday mitigate, prevent and cure such ailments as Alzheimer's, Parkinson's and autism.



THREE SCHOLARS ARE NAMED
TO THE NATIONAL ACADEMY
OF ENGINEERING: GARY
GLOVER (RADIOLOGY), JOHN
LINEHAN (BIOENGINEERING)
AND ARGGYASWAMI PAULRAJ
(ELECTRICAL ENGINEERING).
ENVIRONMENT TO SUPPORT
INNOVATIVE ENVIRONMENTAL
PROGRAMS AND
COLLABORATIVE RESEARCH.

STANFORD RECEIVES A RECORD 22,223 APPLICATIONS FOR UNDERGRADUATE ADMISSION.



"AMERICAN ABC: CHILDHOOD IN THE 19TH CENTURY" IS DEVELOPED AND DEBUTS AT THE CANTOR ARTS CENTER BEFORE TRAVELING TO WASHINGTON FOR THE REOPENING OF THE SMITHSONIAN'S AMERICAN ART MUSEUM.



THE NATIONAL CANCER
INSTITUTE ALLOTS \$20
MILLION OVER FIVE YEARS
TO THE MEDICAL SCHOOL
FOR A CENTER FOR CANCER
NANOTECHNOLOGY, LED BY
PROFESSOR OF RADIOLOGY
AND BIOENGINEERING SANJIV
SAM GAMBHIR.

MARCH

STANFORD TEAMS UP WITH UCLA, THE UNIVERSITY OF CALIFORNIA AT SANTA BARBARA AND THE UNIVERSITY OF CALIFORNIA AT BERKELEY TO LAUNCH WHAT WILL BE ONE OF THE WORLD'S LARGEST JOINT RESEARCH PROGRAMS FOCUSING ON "SPINTRONICS."