

'Round About the Institute

Information Science and Technology: Celebrating the Future

A gathering to welcome 22 new IST postdoctoral scholars took place on Friday, October 15, 2004 in Tournament Park. It was a most pleasant, informal, affair with good food and drink picnic style, providing an opportunity to hang out with the faculty and the ever-so-helpful staff. But the sparkling beverages would have been replaced by champagne if they knew then what we know now: two magnificent gifts have come to IST, one from the Annenberg Foundation and one from the Gordon and Betty Moore Foundation.

The Annenberg gift of \$25 million will be used to construct a new building to serve as the formal home for IST. Now in the design stage, the building—to be called the Walter and Leonore Annenberg Center for Information Science and Technology—is expected to be ready in 2007. It will join the existing Watson and Moore Laboratories forming an “information core” of buildings. Jehoshua Bruck, Director of IST and Gordon and Betty Moore Professor of Computation and Neural Systems and Electrical Engineering, has spearheaded the IST initiative largely because, as he states, “to maintain preeminence in science the U.S. needs new and unified ways of looking at, approaching, and exploiting information in and across the physical, biological, engineering, and social sciences.” Upon announcement of the gift, Leonore Annenberg, president and chairman of the Annenberg Foundation, conveyed her excitement. “I am delighted that the Annenberg Foundation will be a part of this visionary enterprise. As a publisher, broadcaster, diplomat, and philanthropist, Walter Annenberg was known for breaking new ground. Support for this important new initiative surely would have pleased him as much as it honors the work of the Foundation.”

The Moore gift—another in a string of generous gifts to the Institute—provides \$22 million to establish four new interdisciplinary IST research centers. The Center for Biological Circuit Design addresses how living things store, process, and share information, and is developing new ways to design, build, and analyze biological circuits. The Social and Information Sciences Laboratory investigates how social systems, such as markets, political processes, and organizations, efficiently process immense amounts of information and will use this understanding to help to improve society. The Center for the Physics of Information examines the physical possibilities and physical limitations of information and will design the computers and materials for the next generation of information technology. Finally, the Center for the Mathematics of Information will formulate a common understanding and mathematical language of information that unifies researchers from different fields.

Our hats are off to the Annenberg and Moore Foundations!

Stay up-to-date with IST at: <http://www.ist.caltech.edu>



Let's Do the Numbers

The summer dwindled away and one by one they came from all corners

of the Earth: the 2004 entering class. The frosh made a detour to Lake Arrowhead for Frosh Camp, while the graduate students settled in to new office and lab space. There are **207** new undergraduates (**59** of them women), and **213** new graduate students (**58** of them women). Of the **213** graduate students, **42%** (**89** total) join E&AS.

Science and Public Policy

Caltech and Jet Propulsion Laboratory

scientists participated in a forum to discuss the relationship between science and public policy in an October 20th event hosted by the Caltech Social Activism Speaker Series in conjunction with the Union of Concerned Scientists and ScienceInPolicy.org.

The distinguished panelists represented a variety of topics in which government policy and scientific research influence one another. President David Baltimore, Nobel Prize winner in 1975 for his work on virology, addressed the relationship between molecular biology, medical research, and public health. Physicist David Goodstein (Vice Provost, Professor of Physics and Applied Physics, and Frank J. Gilloon Distinguished Teaching and Service Professor) is an expert on energy and energy policy who recently published *Out of Gas*, a comprehensive look at dwindling energy supplies and potential alternatives. In his Watson Lecture of October 14, he predicted that civilization will face its demise within a century unless petroleum-based energy sources are replaced with sustainable alternatives. Janet Hering, Professor of Environmental Science and Engineering, is an environmental scientist who studies the spread of pollutants in aquatic ecosystems with the aim of informing environmental policy in both developed and developing nations. (See her Progress Report on arsenic mobilization in the L.A. Aquaduct, page 8.) JPL planetary scientist Ashwin Vasavada is an expert on climate change and worked as an aide on science policy for U.S. Representative Vernon Ehlers.



David Baltimore, David Goodstein, Janet Hering, and Ashwin Vasavada.

Caltech Social Activism Speaker Series: <http://sass.caltech.edu>

Opposite, top photo: Mackenzie Sikora modeling the new IST t-shirt. Second photo (left to right): postdoctoral scholars Ron Lavi and Dunia López-Pintado, and founding member of SISL (Social and Information Sciences Laboratory) John Ledyard, the Allen and Lenabelle Davis Professor of Economics and Social Sciences. Third photo: IST Managing Director Bob Carroll and CBCD (Center for Biological Circuit Design) Director Paul W. Sternberg, Professor of Biology and Investigator, Howard Hughes Medical Institute. Bottom photo (left to right): IST postdoctoral scholars Razvan Cristescu, Tudor Stoenescu, and Daniel Marco.