



## Strategic threats discussed at forum

Twelve schools, one institute, help a scary new world.

By Sandy Smith, Penn Current

**W**ith defense against external threats high on the American agenda, a new interdisciplinary institute at Penn is helping policymakers identify and counter them. On Oct. 18, four faculty members associated with the Institute for Strategic Threat Analysis and Response (ISTAR) discussed some of those threats and how ISTAR could contribute to dealing with them.

The discussion took place at an institute symposium, “Strategic Thinking: How Climate, Disease and Socio-Political Structures Become Strategic Threats,” held at the Annenberg Center.

The symposium was ISTAR’s first public event, but the institute has been in existence for a little over six months. Provost Robert Barchi, in his opening remarks, said, “Already, [ISTAR has] been represented in meetings at the Pentagon, the state capitol, in 150 congressional offices and with President Bush’s science advisors.”

ISTAR also co-sponsored the Oct. 3 White House town meeting on Internet security (Current, Oct. 17).

Harvey Rubin, director of the institute and a panelist at the symposium, explained in an interview that ISTAR was created to bring some of Penn’s best researchers in a wide range of fields together to focus on issues relating to strategic threats to national and global security.

“The reason for the institute is to make sure that people who may not have met each other or know each others’ interests can get together and deepen and broaden each other’s research and training opportunities,” said Rubin, a professor of medicine, microbiology and computer science. ISTAR is also unique in that it involves faculty from all 12 schools of the University. The institute currently has 73 affiliated faculty, and Rubin said that all faculty with an interest in strategic threats are welcome to join.

A slice of ISTAR’s breadth was on display at the symposium. The four participants examined the natural phenomena that draw peoples into conflict and how climate, disease, trade and technology can all throw stable societies into turmoil.

Robert Giegengack, professor of earth and environmental science, focused on two basic human needs—energy and water—in his talk. The problem, he stated, was not so much that resources were being consumed faster than they could be replaced but that the location of the supply and the location of the demand were out of sync. “The people who use the energy are not the people who have access to it,” he said.

As with energy, so with water. In looking at the eastern Mediterranean area and the Nile River region, Giegengack noted that limited water supplies in both places have been sources of international tension. Israel bombed Syrian bulldozers to keep them from diverting a tributary of the Jordan River, an action that ultimately led to the Six-Day War in 1967. Egypt has stated that Ethiopian plans to dam the Blue Nile will lead to war, and Giegengack stated that he suspects Egypt helps fund Sudan's ongoing civil war in order to prevent any possible water projects on the Nile there. In short, he said, "We must understand patterns of resource distribution" to help identify possible strategic threats.

Both Rubin and Gary Smith, head of the section of epidemiology and public health in the Department of Clinical Studies at the New Bolton Center, focused on the threats posed by diseases. Smith stressed the need to include animal diseases and climate study in the mix, while Rubin focused on the interaction between diseases and sociopolitical structures.

Epidemics, Rubin said, have major impacts on societies and economies. The 14th-century bubonic plague outbreak in Europe—caused by improvements in ship design that allowed plague-carrying rodents to reach Europe from North Africa—cost Europe a third of its population and led to the relocation of Europe's Jews, who got blamed, to its eastern fringes.

"We say that could never happen today," he said. "But it is happening right now, with AIDS." Citing National Intelligence Council forecasts, Rubin said that AIDS could account for a 20 percent drop in economic activity and a 30-year drop in life expectancy in India by 2010.

Rubin also shared with the audience a simulation run by the U.S. government last year called "Dark Winter," in which a smallpox outbreak in Oklahoma leads to a crippling disruption of the nation's healthcare system.

Such simulations are the sorts of things centers like ISTAR could contribute to our understanding of strategic threats, said Arthur Waldron, Lauder Professor of International Relations.

Waldron's remarks ended a talk that focused on how terrorists and governments use violence or the threat of it to achieve their goals. One error both make, he said, is in assuming that violence will lead to either quick capitulation or widespread panic and loss of resolve.

Waldron also noted that every strategy involving the use of force needs to have a "theory of victory"—an internal narrative explaining how the desired end will come about.