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MOVERS

Thomas Henzinger, president, Institute of Science and Technology Austria, Klosterneuburg, Austria

2004–09: Professor, computer and communication sciences, Swiss Federal Institute of Technology, Lausanne, Switzerland
1998–2009: Professor and adjunct professor (since 2005), electrical engineering and computer sciences, University of California, Berkeley

As president of the Institute of Science and Technology (IST) Austria, Europe's newest science and technology academy in Klosterneuburg, Tom Henzinger's focus will shift from researching ways to improve the reliability of software and hardware systems to developing a world-class institute, faculty and staff.

Henzinger, a renowned computer scientist who is best known for his work in real-time and embedded systems, formally assumes his new post on 1 September. IST Austria's buildings and campus are still under construction, and its newness was one of the reasons he was drawn to the position. "That is what attracted me," Henzinger says. "One can shape everything."

Also appealing was the chance to return to his homeland. Henzinger hasn't lived in Austria since the 1980s, when he left to pursue a PhD at Stanford University in California.

Currently a computer and communication sciences professor at the Swiss Federal Institute of Technology in Lausanne, Henzinger has focused on developing ways to uncover bugs and errors in computer programs. He worked on this at the University of California, Berkeley, where he also co-developed a computer language that eliminates many sources of timing errors — crucial in aeroplane navigation systems, for example. If a personal computer crashes, it is an annoyance, "but if a system gets hung up in a critical moment in flight control, it could be a disaster", Henzinger says.

Although Henzinger is fascinated by the precise world of computers, he has been expanding his purview, researching applications of computer models to biology and other sciences. That multidisciplinary perspective helped make IST Austria's decision, he says. "Interdisciplinarity is a necessity in science today. At IST Austria, we will have material scientists next to biologists next to computer scientists," Henzinger says. "Computer science today is not just about number crunching but is a science of design."

Edward Lee, from the University of California, Berkeley, says that his former colleague is ideally suited to lead IST Austria: "His thinking is unconventional — he doesn't do mainstream stuff in mainstream ways. Everything he's done has branched in a new direction and had a major impact."

In his new role, Henzinger will recruit faculty members instead of being one, and he won't just fill seats. "We want to create a top-ranked research institute that will compare with the top institutes in Europe and the United States," he says. "We will not compromise." ■

Karen Kaplan

SCIENTISTS & SOCIETIES

Scientists without borders

Science job and workforce growth in the United States could be stymied under current federal controls that govern visas and exports, warns a new report, which calls for a revision of the existing regulations.

The January 2009 report by the National Research Council, *Beyond "Fortress America": National Security Controls on Science and Technology in a Globalized World*, says current visa and export regulations are rooted in the 1950s, hamper US competitiveness and impede science and technology job and industry growth.

US visa and export regulations impede the free flow of people into the country as well as information or products out of it. Recent changes in visa laws have lengthened the time it takes for a non-US resident to get a US visa, the US state department concedes on its website. Export laws limit or bar publication of information and exportation of goods that could potentially pose a threat to national security.

The regulations are driving critical jobs, and valuable discoveries and inventions, overseas, the report says.

John Hennessy, president of Stanford University in California, was co-chair of the council committee that authored the report, and Deanne Siemer, a lawyer and consultant, and Gerald Epstein, from think tank the Center for Strategic and International Studies, both based in Washington, DC, joined him on the committee. They say non-US students and scientists must have access to US universities and science labs. Research collaborations are jeopardized when non-US scientists experience delays getting a visa and can stay for only a brief period, they say.

"Increasingly, we see organizations choosing to have meetings outside the United States to avoid visa issues," Hennessy says. "If we don't permit the world's best students and scholars, scientists and technologists to come here, [science job creation] won't happen," says Epstein.

"Science and technology graduates are the ones who actually create more US science jobs," agrees Siemer.

The report recommends non-US scientists receive a visa under an accelerated skill-based selection process. "We must get that talent here faster," Siemer says. "We're talking about our economic competitiveness."

Siemer believes an executive order from the White House mandating the recommended changes could be signed. "There is a large reservoir of expertise behind this report," Siemer says. "It's likely this will be adopted." ■

Karen Kaplan

POSTDOC JOURNAL

Life's bitter-sweet symphony

An orchestra integrates disparate instrumental sections to achieve beautiful musical harmony. In the same way, for personal and professional success I seek to balance family life with the demands and pressures of a postdoc's life.

Conducting experiments, completing data analysis, writing and hearing cries of "Daddy, you're home!" are the quaint sum of my typical day. Science consumes my mind and my pipetting hand. Family consumes my heart. Striking the balance is often challenging, especially when things get hectic in the lab. Happy Valley, or so they call it, is the home of Pennsylvania State University, where I study the mechanisms governing gene regulation in baker's yeast using a genome-wide approach. As a new postdoc, I am struggling with Robert Frost's literary fork-in-the-road decision: Do I pursue a career in academia or industry?

In the sagacious words of the knight from *Indiana Jones and the Last Crusade*, "Choose wisely, but you may only choose one." In choosing between academia and industry, I see obvious advantages and disadvantages. How will I choose wisely? How will I balance my personal and professional considerations?

The key to making wise decisions is to ask advice from those who are wiser and more experienced than I am. Making life-changing decisions is not easy, but I invite you to join me over the course of the next year as I compose my own personal symphony. ■

Bryan Venters is a postdoc in molecular biology at Pennsylvania State University.