

**CHANCELLOR ROBERT C. DYNES**  
**AAU MEETING: HOMELAND SECURITY**  
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Let me begin by thanking you for putting this topic on your meeting agenda, and I'd also like to thank the AAU for keeping this topic on our national agenda.

I would like to offer my personal observations about the debate over scientific openness vs. national security. In the end, I hope we will all agree that America doesn't have to choose either one or the other. I want to speak frankly about the challenges this has presented to research university administrators, and I expect your survey results help elucidate those challenges. Then I'll end with a cautionary tale involving new revelations about foreign-born scientists who helped the Allies win World War II.

As Fawwaz and Shana have noted, we are deliberating over government proposals that would seek to do two things, and I'll recap them quickly:

- First, they would impose new restrictions on publishing findings from federally-funded research that is deemed "sensitive but unclassified."
- Second, they would curtail the participation of foreign-born researchers in such projects.

My personal view is that these proposals are not in the national interest. But I want to emphasize that the officials who have crafted them are good people. I'm sure they believe that they are acting in the national interest. But I'm not sure they fully appreciate why openness is critical for scientific progress, which is critical for national security.

So I think our first challenge as university leaders is to refrain from an "us vs. them" mindset. We are all on the same side. We were all scarred by the events of September 11, 2001. We have all been galvanized by that tragedy. We all want to come up with new innovations that will safeguard the nation; and if we keep talking across sector fences, we will do exactly that.

As we continue to talk, I believe our second challenge is to be very specific and to ask our partners in the federal government to be equally specific. Scientists have reacted strongly to the "sensitive but unclassified" notion because, to be blunt, we think it's squishy. It's like the anti-pornography crusader who says, "I can't define smut, I can't really tell you what it is, but trust me, I'll know it when I see it."

Engaging in dialogue and insisting on specificity are short-term challenges. If we don't meet them, we may face a third challenge down the road, and it is a daunting one: As the primary stewards of the nation's knowledge infrastructure – which we now are – we may have to choose between sacrificing essential federal support and sacrificing global intellectual leadership.

By way of background, in the last century, the United States emerged as a world leader thanks in part to research and development in industrial powerhouses like Bell Labs, my alma mater. Over time, U.S. technology spread around the world; global competition became intense; and U.S. industry began to pull away from long-term research to focus on short-term goals.

In the late 1980s, I began to realize that in the future, U.S. universities would have to fill the void being left by U.S. industry. So I left Bell Labs for UCSD in 1990. And for me, that turned out to be a good move, given that Bell Labs is now Lucent Technologies and appears headed toward bankruptcy.

It was liberating to leave the for-profit sector for the non-profit sector and to trade in a corporate mission for a public mission. But, on the flip side, I had to start navigating the complex system of public grants and contracts dispensed by a wide array of government agencies with a wide array of conditions and rules. Over the past decade, that system has become much more complex, and often, it is bewildering.

Even before 9/11, universities were encountering abrupt changes in government restrictions, most notably in the ITAR, the International Traffic in Arms Regulations, and in other export control laws. As you may know, both MIT and UCSD have recently turned down major research awards. Our case involved a proposed sub-award from a defense contractor. We were asked to accept prior approval before publishing any research results, and we declined. I'm happy to report that, in our case, the door is not entirely closed. We're still talking, but the proposal still contains language that we cannot accept.

Nobody likes to turn down money. At UCSD, we are highly dependent on federal support, and we take great pride in that support. But if we give up scientific openness because federal agencies threaten to withhold money – or because they rule out the participation of our foreign-born colleagues – we will risk the integrity and viability of our research enterprise. And in the process, we will jeopardize America's homeland security.

As you probably know, the editors of *Nature*, *Science*, and 30 other leading journals recently issued a "Statement on Scientific Publication and Security." Let me read an excerpt from that statement:

Quote: "We must protect the integrity of the scientific process by publishing manuscripts of high quality, in sufficient detail to permit reproducibility. Without independent verification – a requirement for scientific progress – we can neither advance biomedical research nor provide the knowledge base for building a strong biodefense system." (End quote)

America has an enviable track record of innovation because our scientists publish their findings so that other scientists can verify them and build upon them. We also have benefited from an environment that does not discriminate between native-born and foreign-born researchers. At UCSD, more than 25 percent of our science

and engineering grad students are foreign-born, and they are among our most talented students. And at a rather well-known UCSD spinoff called Qualcomm, nearly 6,000 employees represent more than 100 different countries, and they speak more than 50 different languages.

I mentioned at the beginning that I have a cautionary tale to share. It involves a 60-year-old secret that was recently divulged, and it illustrates how misguided attempts to protect America from harm could put this nation directly in harm's way.

In the December issue of the journal *Oceanography*, Walter Munk of the Scripps Institution of Oceanography reported that he and his former boss, Harald Sverdrup, had their security clearances revoked at a critical juncture of their World War II research – research that helped the Allies successfully invade northern Africa, the Pacific Theater, and Normandy.

Sverdrup and Munk were foreign-born scientists who pioneered the study of atmospheric and ocean currents, and they both proudly served the Allied war effort by predicting ideal conditions for amphibious assaults. But, as outlined in newly-declassified FBI files, both came under suspicion simply because they were foreign-born, and both were denied access to their own labs in 1942.

This cautionary tale had a happy ending because leading American scientists did just what we are doing now – they stood up for Sverdrup and Munk, and they persisted in engaging federal and military officials in a vigorous dialogue. The two scientists were exonerated in 1943, leaving them a year to participate in plans for the June 1944 D-Day invasions.

As a postscript, Sverdrup died in 1957, and Munk now holds the Secretary of the Navy Chair in Oceanography at SIO. Walter's many honors include the National Medal of Science, presented to him by President Reagan in 1985, and the Kyoto Prize in Basic Sciences, presented to him by Emperor Hirohito in 1999.

Our laudable zeal to fight terrorism should not lead to the overzealous and capricious restraint of scientific collaboration. That's why the National Academies of Science have asked for a reaffirmation of the National Security Decision Directive 189, issued by the Reagan Administration in 1985.

We have received encouraging signals from key people inside the Bush Administration, including two former academics, Condoleeza Rice and Jack Marburger. We are working with our federal partners on borrowing protocols that have worked well in the physical sciences and putting them to use in the biological and medical sciences to cope with the new threat of bioterrorism.

And, at gatherings like this, we are giving these very serious issues our very serious consideration. I think that's very healthy, and I think the research establishment will emerge stronger for it.

As we continue along this road, let's heed the words of another foreign-born American innovator, the late RCA Chairman David Sarnoff, who said, and I quote:

"Freedom is the oxygen without which science cannot breathe."

Thank you.

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