Northeast Asia trip bolsters ongoing scientific cooperation
Chief Executive Officer Rush Holt offers strategy for building trust in science

By Michaela Jarvis

AAAS Chief Executive Officer Rush Holt urged a strong commitment to bringing the public and the science community closer together during a visit to Northeast Asia earlier this month. Over the course of a week-long trip to major science organizations in Tokyo, Beijing, and Seoul, Holt explained that only by encouraging ordinary citizens to demand evidence as they make decisions governing such important matters as their health, safety, and the environment, will the best outcomes be achieved.

“If societies and economies are to progress in the best possible ways, it will be because the public understands that science belongs to them, and not just to the scientists,” said Holt, in a keynote speech at the opening of Science Agora, Japan’s largest scientific forum, which is organized by the Japan Science & Technology Agency (JST). “The public can ask at every turn, what is the evidence? They can demand that others show a respect for evidence and demand that others not push evidence aside in favor of opinion and ideology.”

“Science is a public undertaking for the benefit of the people,” said Holt, who is also the executive publisher of the Science family of journals.

The 2 to 9 November trip to Asia—Holt was accompanied by AAAS Chief International Officer and Director of the Center for Science Diplomacy Tom Wang—continued a long history of AAAS engagement in the region. Over several decades, AAAS has built relationships with like-minded organizations there, comparing methods of dealing with local as well as global science-related challenges, bolstering advantageous scientific collaboration, and even helping to improve diplomatic relations, which Holt noted in a keynote speech at the opening of the Korea Foundation for the Advancement of Science & Creativity (KOFAC) Annual Conference, pointing out that “Science requires cooperation—and also engenders cooperation.”

Earlier this year, AAAS signed a memorandum of understanding with the Korea Institute of S&T Evaluation and Planning (KISTEP) and expanded a liaison group of associations for the advancement of science to include JST and KOFAC. Representing one of AAAS’s longest international collaborations, the China Associ-
tion for Science and Technology (CAST) has shared a partnership with AAAS since 1978, before the normalization of diplomatic ties between the United States and the People's Republic of China.

Continuing that relationship, Holt and Wang met with officials at CAST and renewed a memorandum of understanding to continue collaboration in upholding research integrity and to support education through the advancement of science. This latest version of the agreement between AAAS and CAST will also strengthen ongoing efforts aimed at engaging the public in science and technology, Wang said in a media interview in Beijing.

The trip also included meetings with directors of the Chinese Academy of Sciences; China's Ministry of Science and Technology; the Japanese Ministry of Education, Culture, Sports, Science and Technology; South Korea's Ministry of Science; and KISTEP.

Also this fall, Brian Lin, director of editorial strategy for the AAAS science news service EurekAlert!; Joy Ma, editorial content manager for EurekAlert! Chinese; and Science Advances Managing Editor Philippa Benson traveled to the region with a set of complementary goals—to help promote worldwide communication of scientific advances to and from the region, which is in general seeing a dramatic increase in scientific research.

This month’s AAAS trips occurred amid an increasing need for science input on global challenges such as climate change and, even more broadly, for achieving the United Nations Sustainable Development Goals, which were internationally agreed upon last year to provide a path for all of society to an environmentally sustainable future. Holt referred to the goals as “an opportunity to communicate the lesson that science exists to benefit humankind and is relevant to people’s lives and welfare.”

The trip also coincided with an acute lack of public trust in science felt in many countries. In Japan, that lack is connected mainly to the 2011 earthquake, tsunami, and resultant nuclear disaster at the Fukushima Daiichi power plant, which left 18,000 dead and displaced thousands more. According to online surveys by the National Institute of Science and Technology Policy in Japan, the disaster dramatically reduced the percentage of Japanese citizens confident in science and technology from about 84% to about 40%, although that figure has rebounded to about 66%.

A press conference held at Science Agora and jointly sponsored by JST and AAAS brought high school students who lived in the disaster area at the time of the nuclear accident to speak about their experiences and about their own trust in science with Holt and JST President Michinari Hamaguchi.
The students said people in their communities are reluctant to believe what scientists say in local presentations about, for example, the relative safety of small doses of radiation.

“Rather than trusting those presentations, people are worried, because they cannot really trust science and technology,” said Yoko Oura, a third-year high-school student at the Fukushima Prefectural Fukushima High School who plans to study medicine.

The students said that before the disaster, they were taught only about the advantages of nuclear power, not about its associated risks, reporting that their schools brought them to the nuclear facility on field trips.

Holt commented that omitting the dangers presented a misleading depiction of science, wherein everything is known and every risk eliminated. Holt told the students that, even apart from their tragic experience and disillusionment, science education should in general present “what we don’t know.”

“That would be much more interesting, it would be much more exciting, and it would be more realistic,” Holt said. What scientists still do not understand is where “the adventure, the challenge, and the importance” of science lie, he added.

Holt expanded on this theme in his keynote speech at Science Agora, emphasizing that keeping ordinary citizens unaware of how science works sets up the potential for loss of trust.

“If scientists insist on presenting ourselves as the sole keepers of truth and let the general public think of us as set apart, we should not be surprised that people will accuse us of not telling the truth when bad things happen,” Holt said.

Hamaguchi agreed, expressing a commitment to minimize the insularity of the Japanese scientific community.

“I have to say that in Japan, scientists attempt to stay in the ivory tower,” Hamaguchi said. “At JST, we are trying to nurture scientists to build a bridge between society and science.”

Wang, referring to all the events and meetings he and Holt participated in involving the three countries, said such dialogue helps to foster scientific progress in order to benefit society worldwide.

“The countries we visited are among the world’s most advanced in science and technology, and the visit allowed AAAS to strengthen ties to the key scientific institutions there,” Wang said. “These international partnerships are critical to building strong scientific communities that are well connected with our broader societies to confront the global challenges facing all of us.”

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