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## Bringing together a global audience at the Science Asia Conference

What does it take to organize a hybrid conference on cutting-edge science featuring dynamic presentations from renowned speakers and participants spanning multiple countries, disciplines, sectors, and time zones? Vision, skill, dedication, a strong sense of humor, and a great attitude. The annual Science Asia Conference for 2021 was held on September 9 and 10, and represented an outstanding hybrid meeting featuring virtual and in-person sessions held at Zhongguancun Life Science Park in Beijing. The goal of the conference was to highlight recent progress in understanding the three-dimensional organization of gene expression in the context of the gene. Speakers addressed progress in basic science and translation of this knowledge into understanding and managing human diseases.

As a part of the Beijing International Academic Season 2021, the conference was organized by *Science*/AAAS in strategic partnership with the Beijing Municipal Science & Technology Commission, the Administrative Commission of Zhongguancun Science Park, the ZGC Forum, Zhongguancun Life Science Park, and Talents Innovation Ecosystem. The agenda covered topics ranging from DNA replication, transcription, and translation to embryogenesis, transgenerational epigenetics, and human disease and aging. Additionally, presentations addressed aspects of basic biology and the underlying principles of CRISPR gene editing and single-cell technologies, as well as next-generation therapeutics and antibiotics.

Xiaohua Shen, professor at Tsinghua University, served as a cochair on an organizing committee that included Di Jiang (senior editor, *Science*/

AAAS) and Barbara R. Jasny, deputy editor emerita (retired). "I have enjoyed working with my co-organizers, who brought together such a great topic lineup," says Shen, who appreciated the conference's focus on both cutting-edge science and science communications, and the impact of both.

A virtual meeting can be challenging in terms of how its value is perceived by participants, but Science Asia executed a flawless affair. "The online forum placed the audience on an equal level," says Jing-Dong Jackie Han, a professor at Peking University. "In particular, students were able to freely ask questions." Young scientists were given a platform to deliver short presentations on their research and multiple opportunities to engage and explore new collaborations, something appreciated by both speakers and participants. "Attending the meeting was important to me, given the popularity of our recently developed methods and our increased interaction with users through our protocols.io sites," says Steve Henikoff, professor at the Fred Hutchinson Cancer Research Center (Seattle, Washington) and an investigator with the Howard Hughes Medical Institute (Chevy Chase, Maryland). "Many of our users are located in Asia, especially China; therefore, the opportunity to show what we can learn from applying these methods was a priority."

Participants found value in diverse aspects of the conference. "Speakers not only presented their published research but also shared unpublished data and ideas, in contrast to most online meetings I've attended," notes Han. Both she and Shen were impressed that >50% of the speakers were women, including two Nobel laureates.

Jennifer Doudna delivered a talk on her groundbreaking work on CRISPR, the powerful gene-editing tool for which she was awarded the 2020 Nobel Prize in Chemistry. "CRISPR technology will likely impact all groups in all regions of the world," says Doudna, professor of biochemistry, biophysics, and structural biology and the Li Ka Shing Chancellor's Chair in Biomedical and Health Sciences at the University of California, Berkeley. "I enjoyed the opportunity to discuss this profound technology, including its applications and ethics, with an engaged audience in Asia." Ada Yonath, director of the Helen and Milton A. Kimmelman Center for Biomolecular Structure and Assembly at the Weizmann Institute of Science in Rehovot, Israel, and a 2009 Nobel laureate in chemistry for her discoveries in ribosome structure and function, delivered an address entitled "From Origin of Life to Exploiting Genetic Code Translation Principles and Cellular Connective Tissues for the Design of Next-Generation Therapeutics." Says Yonath, "I participated in this conference [because] it provided a chance to interact with scientists addressing real-world scientific matters," noting that she would recommend this meeting to colleagues.

One of the highlights for Han was the talk given by Richard Young, professor at the Whitehead Institute and MIT in Cambridge, Massachusetts, who spoke about "Nuclear Condensates in Gene Regulation and Disease." Han explains that Young's talk "shows how one can start with a very basic science topic like cell identity and transcription dynamics to uncover novel concepts and knowledge, such as super enhancers and phase separation, and ultimately target diseases and promote health from a new angle. It was great to finally get a chance to interact with him in person after years of reading his papers and listening to his talks. He is a great speaker."

Shen's presentation highlighted how much we don't know about science. "How does a single somatic cell become a whole plant or animal? Why do humans have so few genes?" she asks. "I talked about the fundamental aspects of how the noncoding portions of the genome, together with their RNA transcripts and associated proteins, organize the higher-order genome structure and influence transcription in pluripotent stem cells."

The conference also included a fascinating panel on science communications that was moderated by Joy Ma, editorial content manager at AAAS' EurekAlert!, and featured Emily Cloyd, director of the AAAS Center for Public Engagement with Science and Technology; Dennis Normile, a correspondent for *Science Magazine* in Asia; Wensheng Wei, a researcher and principal investigator at Beijing Advanced Innovation Center for

Genomics (a research center affiliated with Peking University); and Dapeng Wang, a researcher at the China Research Institute for Science Popularization (an organization affiliated with the China Association of Science and Technology). Ma took her participation in this panel very seriously, stating, "The field of genomics represents a revolution in finding better solutions to predict, diagnose, and treat diseases, and studies related to genome biology can potentially offer patients more effective treatments and better quality of life. As a science communication professional, I consider it a responsibility to participate in discussions and conversations concerning how science is communicated to a broader audience."

The panel also delved into topics related to publishing and open access, the speed of news, dealing with skeptical audiences, and peer review. "Many professional conferences offer 'science communication' sessions," notes Ma. "However, many of those sessions focus on training researchers on how to write academic papers and communicate with journal publishers. The science communication session at this conference focused instead on communicating science to reporters, students, public information officers, and the general public. The session

also presented a unique opportunity to discuss how science and science communication influence each other and change how scientists, reporters, and science communication professionals work together. These sessions offered new and different perspectives that deepened my understanding of how to work more effectively with both scientists and reporters."

The organizers are already considering the next Science Asia conference, which will be held in China during the Beijing International Academic Season 2022. Han says she would participate again, because in addition to enjoying the science, she found that the conference "increased my curiosity and helped me to generate new ideas and connect with people and topics outside of my field. I am grateful for having had the opportunity to participate and present our work at this meeting." Adds Doudna: "Science is a global endeavor, and we must use credible platforms, such as Science Asia, to learn from each other and to help educate the public about our work."

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**— Ada Yonath**

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