



Working Together for a Brighter Future

The Chinese Academy of Sciences (CAS) is commemorating its 75th anniversary on the 1st of November. Since its inauguration, CAS has served as China's highest academic institution in the natural sciences and the country's principal advisory body for science and technology (S&T). As a comprehensive center for research and development (R&D) in science and high technology, it has advanced along with science and developed in pace with the nation. It has not only played an important role in spearheading China's S&T progress and its socio-economic development, but has also made important contributions to the advancement of S&T for all humanity.

After 75 years of development, CAS has grown into a national scientific research institution of international prestige, with a structure that integrates research entities, academic divisions and educational institutions. Under its umbrella, CAS has established 106 research institutions and two universities across the country.

The past 75 years have witnessed countless glorious moments resulting from CAS research: the successful launch of China's first man-made satellite; the development of the world's first artificially synthesized crystalline bovine insulin with bioactivity; manned deep-sea scientific explorations to depths exceeding 10,000 meters; multidisciplinary scientific experiments aboard the space laboratory; and quantum computing supremacy achieved through two different routes, among others. Currently, major S&T infrastructures such as the Five-hundred-meter Aperture Spherical Radio Telescope (FAST) built and operated by CAS, the Large High Altitude Air Shower Observatory (LHAASO), and various types of synchrotron radiation light sources, together with powerful super-computing centers and databases, are facilitating further exploration of the unknown world.

CAS has long paid keen attention to crucial global issues, including eco-environmental preservation, global climate change, biodiversity, and food and water security, thus actively fulfilling the UN 2030 Sustainable Development Goals to improve human welfare through S&T. For example, it has organized and conducted large-scale scientific expeditions to the Qinghai-Tibet Plateau, revealing the secrets of the ecosystems revolving around "Asia's Water Tower" and the area's biodiversity; it has developed a series of key technologies for clean, high-efficiency coal utilization and new energies, driving the green, low-carbon transition of the economy; it has also conducted research on the frontiers of life and human health, such as stem cells, synthetic biology, new medicine R&D, and genetic breeding, in order to tackle challenges in the areas of public health and food security.

CAS has actively participated in international S&T cooperation and has made many important contributions. In fact, China sent its first email to the

international community from CAS. As of now, the Academy has formed partnerships with over 170 institutes, universities, and international science organizations from over 60 countries. It has actively participated in mega-science programs or projects like the International Thermonuclear Experimental Reactor (ITER) and the Square Kilometre Array (SKA). Through exchange programs like the CAS President's International Fellowship Initiative (PIFI), CAS supports distinguished scholars from around the world to visit its institutes; it also offers scholarships for overseas students to study at CAS. Here at the Academy, many sophisticated mega-science facilities are accepting research proposals from the entire international science community, and large international consortia like the Jiangmen Underground Neutrino Observatory (JUNO) and the Solar Wind Magnetosphere Ionosphere Link Explorer (SMILE) mission have brought together scientists from around the world.

Worldwide transformations unseen in a century are currently evolving at an accelerating rate, and humanity is faced with increasingly severe global challenges involving sustainable development. All these challenges require us to enhance international cooperation and solve them together. In the meantime, profound changes are occurring in the scientific research paradigms, while a new S&T revolution and a new round of industrial innovations rapidly unfold. This situation also requires that scientists from different countries strive together to achieve revolutionary breakthroughs at an early date.

We firmly believe that scientific research, as an important means of understanding the world, will continuously expand the frontiers of human knowledge, using wisdom to light the way for humankind. We also deeply understand that science is a common good that will help improve living conditions for all human beings. Through science, we can achieve the vision of sustainable development where humankind and nature may coexist harmoniously. For this reason, we open our doors to colleagues from all over the world, welcoming them to join us in tackling the puzzles of science together, thus fulfilling the goals of the *Global Development Initiative*, the *Global Security Initiative*, and the *Global Civilization Initiative*, as we build a community with a shared future for humankind.

As we celebrate this 75th anniversary, we are delighted to share our joy with the rest of the world. Let's celebrate the glories of science while joining hands to forge a more brilliant future for us all!

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