



CAS and MPG celebrate their four-decade-long S&T cooperation and cherished friendship and trust. (Photo by SONG J.)

Closer for Better Future

By SONG Jianlan (Staff Reporter)

Scientists from CAS and the Max Planck Society (MPG) met on May 13, 2014 in Beijing to celebrate their four-decade-long S&T cooperation and cherished friendship, anticipating further development of the bilateral relation.

This partnership formally began four decades ago with a visit paid by then MPG President, Prof. Lüst to CAS, introduced CAS President BAI in his address at the celebration: “During the visit, CAS and MPG confirmed the basic principles of cooperation, that is equality and mutual benefits for both sides, and reached agreement to develop a collaborative partnership.” This occurred only two years after the establishment of the diplomatic relations between Germany and China, despite the shadow of the Cold War.

“Building up a partnership between Germany and China took an enormous amount of courage and foresight,” MPG President Prof. Gruss commented when recollecting the early days of the partnership, and expressed his appreciation for the foresight and willingness to embark

on a partnership held by then leaderships of the two organizations.

Starting from sporadic joint scientific projects, now this partnership has developed through thicks and thins into S&T cooperation covering a wide range of disciplines with a variety of joint initiatives, from the Max Planck guest laboratory in Shanghai, to the Research Groups and Partner Groups, the Institute for Advanced Study, the CAS-MPG Partner Institute for Computational Biology (PICB), the Joint Training Program, the Exploratory Round Table Conference (ERTC), and to the latest milestone along this 40-year long journey, the “Junma” Talent Program, which aims to support outstanding junior MPG scientists to conduct research in China’s science system.

“We have jointly trained a large number of excellent researchers in a wide range of key frontier areas of research, such as astronomy, life sciences, space science, and earth science, and made important scientific achievements. These researchers have later played significant roles in leading



the development of new scientific disciplines in China and in further enhancing the cooperation between China and Germany,” Prof. BAI mentioned.

Both Presidents of CAS and MPG thought highly of the partnership. “Over the past four decades, CAS and MPG have built a profound friendship and trust through close and active scientific collaborations, and created a model for international cooperation often referred to as ‘a typically successful example,’” CAS President BAI Chunli remarked in his address.

FOUR KEY ELEMENTS for Successful Int’l Cooperation

After a brief review of the past experiences, CAS President Prof. BAI indicated four key elements required by successful international partnership, namely *mutual respect and trust, people, complementarity and mutual benefit, and novel instruments of collaboration*, which have all been proven by the two sides’ experiences. BAI expressed his appreciations for the farsightedness and courage of the predecessors: “Looking back on our 40 years of collaboration, I cannot help but feel sincere appreciation for the farsightedness and courage of our predecessors’ resolution to develop collaboration and partnership. What’s more, I admire people like Prof. Uli Schwarz, who dedicated his life-long career to the promotion of international cooperation, and many more who have generously devoted their intelligence, wisdom and time.”

Particularly, he emphasized the importance of *complementarity and mutual benefit*, describing them as the driving forces behind collaboration. Due to historical reasons, he commented, China’s S&T development was far behind Germany. At the initial stage of the bilateral collaboration, CAS received much help from its German partner. With the rapid economic development and S&T progress of China, CAS scientists have been engaged in activities contributing more and more to MPG’s work. “I think it is fair to say that our partnership has reached a new state of mutual benefits,” he affirmed.

Brighter Future

At the turn of the 40th year of the cooperation, both sides are seeing even brighter prospects, against the backdrop of China’s emergence not only as a powerful economy, but also an important R&D player.

“As much as 12% of global research spending came from China in 2009; this makes the People’s Republic the second-largest R&D performer in the world,” observed Prof. Gruss: “The Chinese government is still increasing



“Look forward to 40 more years of successful cooperation, at the very least!” (Photo by LI H.)

R&D expenditure – and it’s paying off. With its output of scientific publications, China moved into the second place behind the United States in 2007 – up from the 14th place in 1995.” “And it’s not only in number that the publications have risen,” he furthered: “but in quality, too. China displays an exceptional rise in the number of most frequently cited papers: no other country comes close to these extremely high growth rates.” He expressed his congratulations on the excellence achieved by China.

Prof. Gruss praised highly the role played by CAS in MPG’s scientific activities and the far-reaching impacts of the bilateral cooperation in particular. According to him, last year about 12% of the foreign junior and guest scientists at MPG came from China, and approximately half of them were from CAS institutes. “Chinese guest scientists have become an important pillar of our international teams and, on the other hand, the research they carry out overseas has a positive impact on their subsequent careers,” he affirmed.

Global Science Calls for Networking

BAI introduced the internationalization strategy adopted by CAS as a new initiative to further internationalize its research and education, to build a world-class science institution and to become a global center of excellence in research, education and innovation. “One major effort in the strategy is,” he indicated: “to launch an international outreach initiative to deepen cooperation with the developing countries in research and education, while strengthening with the developed economies.” For this he highlighted the importance of international cooperation and expressed his wishes for a bigger role the partnership with MPG would play.

“We deeply cherish the friendship between CAS and MPG. It is the outcome of hard work of many generations through the efforts of four decades. We attach great importance to this collaboration. It is a win-win strategic partnership and a shining model for other bilateral relationships to follow,” BAI remarked. “Let us hope and anticipate that this partnership will continue to grow with our joint efforts, and help bring our two nations closer for a better future of the whole world,” he concluded.

Prof. Gruss also highlighted the importance of international cooperation for MPG, citing that almost two-thirds of their scientists’ publications were the product of international cooperation. “The Chinese Academy of Sciences is one of our most important partners,” he remarked, and finally in an optimistic tone he concluded: “I would like to wish both of our institutions continued success on this path – and look forward to 40 more years of successful cooperation, at the very least!”

Science in Cooperation

After a brief ceremony, CAS and MPG scientists celebrated their anniversary in a special way: they reported the latest results from their cooperative research at the “CAS-MPG Academic Forum”, revolving around the themes “New materials for energy applications”, “Computational biology and health” and “Human evolution in Asia”.

At the Forum, a total of six lectures were given, including the one on “*In-situ* characterization of novel catalysts for electrochemical energy conversion” by Prof. Dr. Martin Stratmann, Director at the Max Planck Institute for Eisenforschung and Vice President of MPG; the one on “Catalysis for efficient transformation of energy” by Prof. Dr. BAO Xinhe, President of CAS Shenyang Branch; the one on “Integrative analysis of aging and disease regulatory networks” by Prof. HAN Jingdong (Jackie Han), Director of PICB; the one on “Custom-tailoring combination drug therapies with bioinformatics” by Prof. Thomas Lengauer, Director of the Max Planck Institute for Informatics; the one on “Genetic studies of human evolution” by Prof. Svante Pääbo, Director of the Max Planck Institute for Evolutionary Anthropology; and the one on “Fossil and cultural evidence for the continuity of human evolution in China” by Prof. GAO Xing, Head of the Department of Paleanthropology at the CAS Institute of Vertebrate Paleontology and Paleoanthropology.

To mark this historic anniversary, an Exploratory Roundtable Conference was held in Shanghai from May 14 to 17 focusing on personalized medicine. At this occasion for interdisciplinary discussions on strategies for future



Prof. BAO Xinhe gives a lecture titled “Catalysis for efficient transformation of energy”, introducing the latest progress in catalyst research aimed at clean, efficient transformation of coal into gas. (Photo by SONG J.)



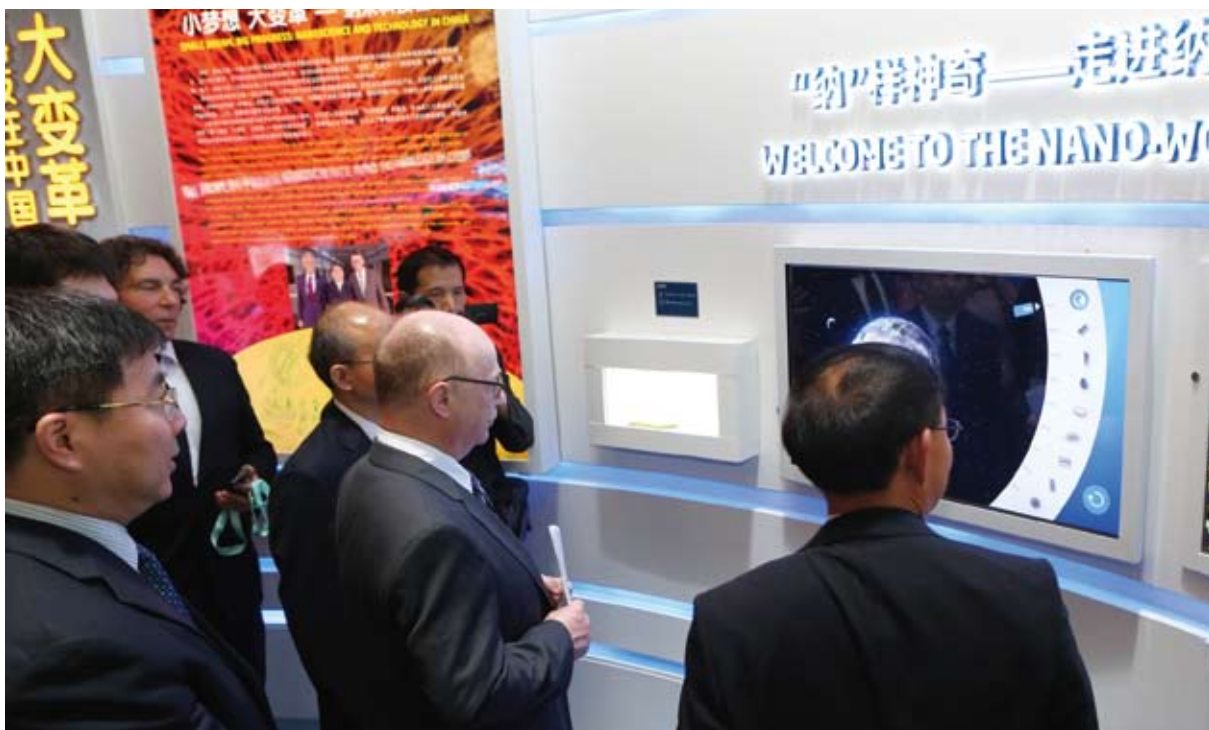
Prof. HAN Jingdong (Jackie Han), Director of PICB gives a lecture titled “Integrative analysis of aging and disease regulatory networks”, reporting the latest discoveries from her research, including some morphological markers of aging. PICB was established in 2004 as a milestone outcome of the continuously deepening cooperation between CAS and MPG. (Photo by LI H.)

development, scientists from CAS and MPG offered suggestions for related decision-making on this scientific frontier.

Science for the Public: Small Dream, Big Progress

To celebrate the anniversary, an event was specially arranged by MPG, CAS and the China Association for Science and Technology for the public – the exhibition “Science Tunnel 3.0”.

First launched in 2000, the “Science Tunnel” is an initiative for science popularization by MPG to convey how fundamental research and discoveries are shaping the future. To meet the demand of increasing visitors, a new version of this multi-media exhibition started in 2012, addressing



“Small Dream, Big Progress”: The booth arranged by CAS at the “Science Tunnel 3.0”. (Photo by LI H.)



the megatrends of the 21st century under the motto of “Creating Knowledge – Shaping the Future”. To celebrate the cooperation anniversary, CAS joined in and contributed a special chapter on nano-technology.

Open from May 13 to June 23 in Beijing, the Science Tunnel 3.0 shared with the public the major questions that scientists are pursuing, and the possibility and opportunities the cutting-edge technologies will lead to, arranged in nine themes: Universe, Matter, Life, Complexity, Brain, Health, Energy, Society, and Nano-technology.

Titled “Small Dream, Big Progress”, CAS showed the visitors what “nano” is, what novel properties nano-materials could possess, what impacts nano-technology will have on people’s life, and what China has achieved so far in this field.

Above-left: What could nano-medicine offer in 16 years? An interactive system shows how “nano” your life would become in 2030: Your samples could be examined by some test papers based on nanotechnology and the results analyzed by an application in your phone in connection with the lab in the hospital; your doctor could give you his diagnosis based on the data you text to him via your handset and cured you with some nano-drugs, which could accurately target the infected tissues and hence take effect at very small doses. (Photo by SONG J.)

Bottom: Arranged into nine themes including Universe, Matter, Life, Complexity, Brain, Health, Energy, Society and Nano-technology, the exhibition “Science Tunnel 3.0” shows visitors the major questions pursued by scientists and where we are in the discovery journey. (Photo by SONG J.)