



Address

**by the President
of the Max Planck Society,
Dr. Peter Gruss,**

**on the Occasion of
the 30th Anniversary
of the Contractual Cooperations**

**between the
Max Planck Society**

**and the
Chinese Academy of Sciences**

May 24, 2004 in Beijing

State Councilor Chen Zhili (Tschen Dsche-li),
Vice Minister Liu Yanhua (Liu Jän-hua),
Colleague Lu Yongxiang,
Former President Zhou Guangzhao,
Ambassador Boudré-Gröger,
State Secretary Dudenhausen,
Former President Zacher and,
Distinguished guests,

It is a great pleasure for me to be here with you in Peking today to celebrate the 30th anniversary of our cooperations with the *Chinese Academy of Sciences*.

As you all know three is a very lucky number and indeed the three-fold principle often occurs in the world. Take the anthropology of Ancient Greece, for example, which regards mankind as a union of body, soul, and spirit, or the cosmic trilogy of heaven, earth and, hell. Christianity is based on the Holy Trinity of God the Father, the Son, and the Holy Spirit. In this the 30th year of our cooperation the number three has multiplied itself ten-fold – truly a stroke of luck for us.

Our good fortune didn't just come out of the blue. Without the hard work and passionate efforts our ties would not have developed so fast and so favorably. Many of you have invested considerable time and effort in the Sino-German cooperation, and a number of you have made a special contribution to strengthening the relations between the *Max Planck Society* and the *Chinese Academy of Sciences*. Today, on behalf of the Max Planck Society, I would like to extend you my heartfelt thanks. My special thanks go to those whose commitment in the very early days laid the foundation for this so gratifying and at the same time successful cooperation.

Unfortunately some of these pioneers are no longer with us, and others had to cancel the trip here for health reasons. But today and in the days to come we will often refer to those first meetings and experiences, and our thoughts will be with those colleagues who are unable to take part in the festivities.

An important factor for the success of our cooperation was not only the political interest, but also the solid commitment on the part of the scientists themselves. Right from the start both parties felt obliged to handle their collaboration in a reciprocal manner not in the sense of keeping track of quotas and sums of money, but rather in the sense of doing justice to the scientific interests.

Another success factor was the continued support shown to us by the *Federal Ministry for Education and Science*. At this point, I would like to thank everyone affiliated with this ministry who had a hand in our cooperative endeavors with China.

The close contacts between the Max Planck Society and the *Deutsche Forschungsgemeinschaft* were also extremely helpful. The *Deutsche Forschungsgemeinschaft* was always prepared to fund projects and university expeditions with considerable grants. Together with its Chinese counterpart, the *National Science Foundation of China* both organizations can now look back on many years of close contacts, which have now taken on a tangible form in the jointly established *Sino-German Center for the Promotion of Science* in Peking. The *Max Planck Society* has been following the development of the Center with great interest and is benefiting more and more from the attractive offers and funding possibilities.

Every jubilee casts a threefold glance at the course of time by looking at events gone by, taking stock of the present, and by looking ahead. To use the words of the German poet, Friedrich Schiller, "**Three-fold is the pace of time: The future comes hesitantly towards us, quick as an arrow the present flies by, for ever still remains the past**". Let me start by looking back at some of the highlights of the past thirty years:

The very first step was no doubt the most difficult because it involved displaying an enormous amount of courage and foresight. Who back then would have dared to predict that this cooperation would evolve to incorporate so many areas? After all, circumstances at that time were anything but stable and trustworthy seeing as things got underway in the middle of the Cold War and at a time when the cultural revolution dominated life in China. From the standpoint of the **Max Planck Society** things might have been helped along by its then President, Professor Lüst, who, as an astrophysicist, not only possesses special foresight, but is also willing to reach for the stars.

Of course the education and further training of fellows was the main focus of those early years. The **Max Planck Society** was supported time and again by the **Alexander von Humboldt Foundation**. A prominent Humboldt fellow is my dear colleague, President Lu Yongxiang who studied at the RWTH Aachen at the end of the seventies. In 1981 he became the first Chinese scientist to receive his doctorate in Germany after the Second World War.

1981 was an important year for our cooperation. Back then we reworked a new cooperation agreement, which led to even more dynamic ties and a remarkable increase

in quality. New facilities were opened such as the Guest Lab in Shanghai, and joint projects consolidated cooperative efforts. Both Secretaries General at the time, Yü Wen and Dietrich Ranft, rendered an outstanding service towards improving the caliber of our ties.

The nineties brought new challenges for the *Max Planck Society* and the *Chinese Academy of Sciences*. For us these years were spent building up science in the former GDR, and for the Chinese colleagues these were the years of transforming the scientific landscape. During his many trips through Eastern Germany, the then President of the *Chinese Academy of Sciences*, Professor Zhou Guangzhao, observed the developments there in order to incorporate these experiences into China's restructuring process. But in the end the German model could only be limitedly applied. Nevertheless the *Max Planck Society's* innovative example of establishing new interdisciplinary institutes in Eastern Germany was a point that was definitely brought up during discussions in China on establishing new institutes.

Since the middle of the nineties, cooperation has been characterized by developments, which can be best described by the key words "*knowledge society*", "*knowledge economy*", and "*globalization*". Since then, there has been no way around this development. The French economist, Alain Minc, once compared the dynamics of globalization with the law of gravity. His conclusion was: **"You can't be for or against the law of gravity, you just have to accept it"**. I feel this saying applies just as much to science as to the economy.

Back then a widespread debate got underway in Germany on the competitiveness and sustainability of the newly united scientific landscape. It became quickly apparent that new concepts would be needed to further internationalize science. Since then, the *Max Planck Society* has broadened its international activities. At the same time internationalization is not an end in itself. If we intend to secure scientific excellence and remain competitive in research we have to attract even more investigators from around the world and expand cooperative efforts with other research facilities.

In China the signs of the times were also promptly recognized. In 1998 the *Chinese Academy of Sciences* initiated a rigorous reform program. The targeted support of young scientists encouraged many young Chinese living abroad to return home. In Peking and Shanghai modern and internationally linked research centers sprung up, such as the *CAS Academy for Mathematic and System Science* and the *Shanghai Institutes for Biological Sciences*.

The cooperation between the *Max Planck Society* and the *Chinese Academy of Sciences* benefited very soon and in a lasting manner. One result was the joint establishment of *Independent Junior Research Groups*. Professor Uli Schwarz, mentor and initiator of the *Junior Research Groups* and Professor Zhuang Xiaohui, the honorary Director of the *Academy's Institute for Cell Biology*, were particularly committed over the years. In 1995 the first two Groups at the "*Shanghai Institute for Cell Biology*" under the direction of Dr. Pei Gang and Dr. Hu Gengxi took up their work. Four additional Groups have since been set up in Shanghai and Kunming.

In 1999 the *Max Planck Society* and the *Chinese Academy of Sciences* signed an agreement to set up *Partner Groups* at selected Institutes of the Academy for a five-year period. As a result, the links between both our institutions have become even more intensive. A few of the Groups are so outstanding that we are currently looking for ways to continue funding them after the five-year period.

A new focus and at the same time one of the most interesting areas of our cooperation is currently research into biodiversity or research into the variety of species as well as the molecular exchanges among organisms in an ecosystem. The province Yunnan is a predestined region for this, and fortunately we were able to secure the *Institute for*

Zoology and Botany in Kunming, supported by the *Chinese Academy of Sciences*, as a long-term partner. I am very much looking forward to my first visit to this region at the end of this week.

In the last three decades we have made tremendous advances and are reaping the benefits today. Nevertheless we also have to prepare ourselves for the new demands of the future. As the German author, Ludwig Börne, once said: “**The vitality of an age does not lie in its harvest, but in its sowing**”. Before we sow we should first ask ourselves what the ground is like, what sort of climate the vegetation requires, and what we ultimately want to harvest.

What this really means is that we have to address basic requirements. The *Max Planck Society* and the *Chinese Academy of Sciences* may have embarked on the road to the knowledge society at different times and under different circumstances, but at the start of the 21st century both find themselves faced with similar challenges.

International competition in science and research is becoming more and more important. For this reason, each institute has to do its part in achieving and securing the necessary scientific excellence.

Today, the challenges in science can be found at the borders and interfaces of already established fields. In the area of demographic research, for instance, mathematicians, doctors, psychologists, sociologists, and geographers are cooperating together to analyze the world's population development in order to make forecasts for science and politics.

A further example is the new discipline of systems biology, which investigates the complex molecular networks of cells and develops models for them. Many of the findings have come to light through the use of high-throughput data collection in genome sequencing, which produces thousands of analyses in a few days.

Various disciplines are being combined in quantum physics. Physicists and computer scientists are currently working on developing principles of quantum computing. The capacities of quantum computers will surpass those of conventional computers in a major way.

In the decades to come we expect major advances in this area and in many others. We will witness trend-setting breakthroughs that will change our view of the world around us, but also of the nature of plants, animals, or even the human brain. Scientists are going to discover new materials and substances that will have a considerable impact on our lives.

The area of biomimetic materials research is particularly promising. Here investigators are attempting to assess the structures and make-up of natural materials to develop new synthetic materials. The much-discussed area of nanotechnology will contribute valuable findings here.

Astronomers are working on the “world formula” that would change yet again the face of physics.

So many new developments lie ahead of us. We, the *Chinese Academy of Sciences* and the *Max Planck Society*, should apply our cooperation potential to develop new forms of cooperation. For us it is important to find ways to set priorities and develop strategies together.

A first workshop on “*Future Perspectives of Cooperation*” took place last year. The proposal, which Professor Gerhard Wegner and CAS Vice President Chen Zhu made on this occasion, is very good. In future we should try to engage in a strategic dialogue on the perspectives of existing research fields and to identify new research fields. With the

motto, "*The Next Generation*", we aim to start building up excellence networks together in which younger scientists assume a major role.

Together we are going to identify research goals and new approaches. The topics should be selected in such a way that the know-how of the involved experts and the composition of the research team can be drawn on appropriately. Over the next three years a series of workshops will introduce this new form of cooperation in which we hope to identify research goals that go beyond mainstream topics. The events should also contribute to identifying young talents who are capable of exploiting new cooperation possibilities. I feel that this project is extremely promising and propose that we open the lecture series this fall on the occasion of the jubilee celebrations in Germany.

I am particularly happy that in our anniversary year we have come closer to our goal of jointly establishing an institute in China with mutual responsibility for the scientific program. Legally and administratively speaking the Institute is to be a part of the *Chinese Academy of Sciences* but closely linked to an existing *Max Planck Institute*. This sort of institutional cooperation would ideally complement prior cooperative efforts. It would be wonderful if the federal Ministry for Education and Research could provide us with funds in addition to support.

The *Institute for Advanced Studies* in Shanghai could play an important role in implementing the new measures. This institute grew out of a joint initiative involving the *Chinese Academy of Sciences* and Professor Uli Schwarz two years ago and supported by the *Max Planck Society* and the *Federal Science Ministry*. The institute stands for the rapid developments in modern science, on the one hand, and for the changing Chinese research system, on the other.

The Institute's goal of strengthening interdisciplinary and international collaboration is extremely important. To underscore this fact, the *Max Planck Society* would like to make the *Chinese Academy of Sciences* a special anniversary present by setting up and funding fellowships at the *Institute for Advanced Studies*. Such fellows are a characteristic worldwide of Science Academies. The goal here is to relieve excellent scientists of their teaching and administrative duties at universities and to provide them with the time and funds to pursue their chosen scientific projects. The Institute in Shanghai offers the ideal conditions.

Looking back on our experiences, I have great confidence that the good and collegial relations between the Chinese Academy of Sciences and the Max Planck Society will continue. Many prolific years lie ahead of us and together we will venture onto new paths together, trying and testing new forms of cooperation.

Sixty years ago the British Prime Minister, Winston Churchill, prophesized that "**all great empires of the future will be empires of the mind**". I am certain that this applies even more in the 21st century. We are indeed well equipped to meet the challenges of this century thanks to our steadfast, trusting, and enduring partnership.

I have every reason to look to our future with the utmost confidence.