What is the most common childhood cancer in China (other than blood malignancy)?
Cancer epidemiology in China is not very accurate because many patients with cancer are not diagnosed due to the lack of resources. Based on the data from Taiwan and Hong Kong, the most common childhood cancer (other than leukemia) is brain tumor.

What are the top three childhood cancers?
The top three cancers (other than leukemia) are brain tumor, lymphoma, and neuroblastoma.
Can you share with us what the incidence of childhood cancer is in China?
It is approximately 12/100 000 population per year.

What is St. Jude’s collaboration with China like? Please elaborate on the St. Jude–China International Outreach program. How has the Chinese government provided funds/aid to children with cancer?
St. Jude has been training physicians and nurses in Shanghai and Beijing, and has provided them with textbooks and medical journals, since 1991. Since 2005, we have also raised funds to treat some underprivileged children with low-risk acute lymphoblastic leukemia (ALL) who would otherwise abandon treatment because of no financial resources. In China, with the exception of Shanghai which has city-wide insurance, only patients who can afford treatment are being treated. I believe that the condition will gradually improve in China under the leadership of the new Minister of Health, who is very cognizant of the problem. However, given China’s large population, changes would probably have to begin at the level of the local government.

What is the current availability of treatment for childhood cancers in China?
It is available only to patients with financial resources.

What is the approximate cost of treatment for a child with leukemia in China?
The cost of treatment varies substantially from region to region. For example, the total cost of treatment for a child with low-risk ALL is approximately US$14 000 in Beijing and Shanghai, but only US$7000 in southern and western parts of China.

What is the cure rate of childhood leukemia in China?
The cure rate is less than 10%. This low percentage is due to the fact that approximately 90% of patients are not being treated because they lack financial resources. For those treated in major centers, the cure rate for ALL is between 60% and 70%.

China is such a big country. What can be done to improve the cure rate of childhood leukemia there?
The establishment of an insurance system for catastrophic diseases, by either the local or central government, is one way to improve the cure rate of childhood leukemia. Hospitals should also invest in the improvement of supportive care and environment.
Have there been any advances in the pharmaceutical industry, invention of new drugs, or development of biomedical research efforts that will bring about improvements in the cure rates?

There are several drugs that have been developed to target molecular lesions of leukemic cells, and some of them are currently being tested in clinical trials. Some existing drugs in the marketplace include imatinib for Philadelphia chromosome-positive ALL, nelarabine for T-cell ALL, and epratuzumab for CD22-positive ALL. Among the new ones under investigation, they include lestaurtinib (FLT3 inhibitor) for the mixed lineage leukemia gene (MLL)-rearranged leukemias, dasatinib for Philadelphia chromosome-positive leukemias, clofarabine for high-risk leukemias, sirolimus after transplantation for leukemias, and bortezomib for relapsed leukemias.

What is the cure rate of childhood cancer in St. Jude Hospital in the USA as compared with that in Singapore? What about compared to other countries in the Asia Pacific?

The cure rate is approximately 75% to 80% for overall childhood cancer, and is approaching 90% for ALL at St. Jude. In an encouraging sign, the cure rates in Singapore are steadily approaching those achieved at St. Jude. The rates are substantially lower in other countries in the Asia Pacific, with the exception of Hong Kong, Taiwan, and Japan, which have cure rates approaching those of the US and Europe.

What remain the main challenges in treating children with childhood leukemia now? How can these challenges be met?

The main challenge is to cure patients with drug-resistant leukemia. We and other centers are currently testing new drugs and cellular therapies, for example, the use of natural killer cells. Many investigators are trying to improve transplantation by using alternative donors (unrelated, haploidentical [parent], cord blood etc.). The side effects of treatment also need to be managed or averted; in particular, infectious death and secondary cancer are the most feared acute and late side effects, respectively.