

ShangRing Technology---Contribution to the World

Honorable president,

Ladies and Gentlemen:

Good afternoon!

I am from China, and a researcher with the academician workstation of Guo Yinglu, the academician of Chinese Academy of Engineering. I was so honored to be here to have a talk.

AIDS prevention, so far has been the critical challenge in the public and reproductive health throughout the world. Although professionals are trying every means to stop the spread of HIV prevalence, unfortunately, we failed to produce the right vaccine effective for HIV prevention. According to the statistics from WHO, there are approximately 36.7 million people living with HIV at the end of 2016 with 1.8 million people becoming newly infected in 2016 globally. Also in 2016, 1 million suffers died from HIV-related causes globally.

Luckily, there is good news that three randomized trials in Africa have shown that male circumcision can reduce HIV acquisition in men by approximately 60%. Studies have further proves that male circumcision can also reduce the risk of male urogenital and female genitourinary system diseases. It is biologically plausible that circumcision reduces

HIV risk in men because the inner mucosa of the foreskin is lightly keratinized and has a high density of dendritic cells and other HIV target cells, making it vulnerable to HIV infection. Also, the foreskin is retracted over the shaft during intercourse, exposing the inner mucosa to vaginal secretions. The prepuce is vulnerable to trauma during coitus, providing a portal for HIV entry. For these reasons, World Health Organisation(WHO)/The Joint United Nations Programme on HIV/AIDS(UNAIDS) have recommended voluntary medical male circumcision as an additional important strategy for HIV prevention, particularly in countries with high HIV prevalence and low levels of male circumcision.

Male circumcision has a history over thousands of years, and to date, large arms of circumcision devices are invented and widely used in different clinical settings. However, those devices are truly associated with more clinical problems, including higher complications in use, limited use in age groups, etc. Contrarily, the ShangRing, named after its inventor, Mr. Shang Jianzhong, can comprehensively and thoroughly solve such problems by its unique design, particularly can be used by little trained providers in poor resources settings, for which the ShangRing gained the attention from Bill Gates. Under the support from Bill & Melinda Gates Foundation, ShangRing devices were subjected to

series of rigorous, large clinical trials in some African countries, including Kenya, Uganda, Zambia and Malawi, from 2009 to 2017. Compelling evidences proved that the ShangRing can be safely and effectively used in different settings, for which the ShangRing was prequalified by WHO as well as approved by FDA of the United States of America. ShangRing is the first male circumcision device that makes standard surgical procedure possible, and gained world recognition and award, for instance, The Highest Golden Award of 43rd Geneva International Invention Exhibition (2015); The 68th Nuremberg International Invention Exhibition Gold Award (2016), especially in 2017 in the 32nd Pittsburgh International Invention Exposition, Mr. Shang Jianzhong won the Gold Medal for Engineering, Humanitarian Award, and Award of Merit. So far, more than 100 academic papers on the use of ShangRing were published in domestic and international journal, including Asian Journal of Andrology, National Journal of Andrology, The Journal of Urology, Current Opinion in Urology, Nature, and Journal of AIDS.

ShangRing is collar clamp device. This design can ensure the even pressure from all round to achieve perfect clamp of the inner and outer foreskin. After full wound healing, the foreskin looks intact without any signs of surgery. In the past 10 years in China, over 2 million clients have

received male circumcision by ShangRing device. Globally, randomized clinical trials(RCTs) were performed in multiple centers Kenya, Zambia and Uganda under the cooperation of experts from Weill Cornell Medical College, FHI 360, and Engender Health. The clinical data showed that the satisfaction was as high as 98.5% and 99.2%. This further proves the safety, effectiveness and acceptability of the ShangRing. Since 2005, more than 300 experts and doctors from over 50 countries and regions received the training on use of SthangRing in the training base in Wuhu, Shanghai, Beijing, Ningbo, Guangzhou and Kunming. ShangRing has been designated as the top technology by Andrology Branch of Chinese Medical Association foreign exchange in this field.

I was so pleased to announce that Mr. Shang Jianzhong the inventor of ShangRing, is just here. He cherishes the hope to contribute his invention to the reproductive health and HIV prevention in African countries, decides, on behalf of Wuhu, to donate 10,000 sets of ShangRing to 10 African countries. We hope through this action, to strengthen awareness and confidence of AIDS prevention and reproductive health of male and female. Also, we want to express our gratitude to the China Reproductive Health Industry Association for her communication and support. As far as I know, many African countries have already applied for sharing the donated devices. We do really appreciate their efforts in HIV prevention.

During this conference, we will hold a donation ceremony with the Coordinator of Ministry of Health of Uganda and Zambia. Welcome everyone to witness this historic activity.

Finally, I'd do on the behalf of the academician workstation of Guo Yinglu to extend our thanks everyone here today. Once again, I'd like to thank Mr Shang Jianzhong for his generous donation. We are convinced that his generosity should be the start of the role of ShangRing in global public welfare undertaking. As Mr. Gates put it in a letter to Mr. Shang Jianzhong, "our efforts can help a safer, healthier world". We hope that we can be in closer band in fighting against HIV/AIDS. Thank you.