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ASIA EDITION

# China firm develops new therapeutic vaccine for rabies

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**Singapore:** China's Yisheng Biopharma, a biopharmaceutical company developing vaccines, has developed a new vaccine for the post exposure treatment of the rabies infection and is set to enter human clinical trial after a six-year collaboration with research institutes worldwide.

The project named National Key Medicine Innovation in 2013 was funded by the National Ministry of Science and Technology of China. This medical breakthrough was evaluated and endorsed by 30 scientists and experts on virology, immunology, clinic and biopharmaceuticals at the Rabies Infection and PIKA Rabies Vaccine Conference held in Beijing on March 8, 2015. The new vaccine product is currently under Phase I clinical study in Singapore.

Rabies remains one of the top three most fatal acute infectious diseases, with 60,000 deaths worldwide in 2013, and represents a severe public health problem in China, India and many other developing countries. Currently there is no effective therapy against rabies infection and the poor outcome when only the current vaccine is injected without immunoglobulin and effective wound treatment, for what is defined by the World Health Organization (WHO) as Category III exposure, is due to server shortages and the costs of immunoglobulin in many countries.

Mr Yi Zhang, chairman, Yisheng Biopharma and the project leader, commented, "There remains a significant unmet medical need for a more powerful vaccine to provide rapid and more effective post exposure protection against rabies. In China it is estimated over 40 million people are attacked by dogs or other animals every year and only around 15 million people receive

a vaccination. Furthermore, over 80percent of post-exposure Chinese patients at clinics are classified with Category III exposure defined by the WHO.

"Our PIKA adjuvant-based rabies vaccine is a revolutionary innovation, which demonstrates effective protection against rabies infection post exposure to the virus. In our multiple animal experiments, animals were first injected with a significantly high dose of the rabies virus, then rescued by our experimental vaccines as well as the vaccines which are commercially available. Only 20% of animals survived after being treated with the vaccines commercially available, however 80 percent of the animals survived after treatment with our PIKA adjuvant-based rabies vaccine," continued Mr Zhang.

Dr Victor Li, who is overseeing the clinical investigation in Singapore, commented, "We are looking forward to the completion of Phase I of the clinical study to provide a first look at the efficacy and safety for humans, and then the launch of Phase II and III multiple center clinical trials in Asian countries. Besides the significant protection advantage over existing vaccines for post-exposure, this new vaccine offers a better solution for patients, with only three injections in seven days, versus five during a 28 day period for a standard vaccination regimen. Based on PIKA adjuvant technology, a series of new vaccines are undergoing preclinical and clinical trials, including Hepatitis-B, influenza, and TB vaccines."