

In memory of a great physiologist and my mentor Te-Pei FENG

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I did my Ph. D. thesis work with Dr. Te-Pei FENG during 1987-1993 (Fig.1). I was lucky to be a student of TP FENG partly because we both graduated from Fudan University, with a time span of 60 years. When TP was 80 years old, he wanted to recruit a student directly from Fudan University and I was recommended to him. The first meeting with TP was unforgettable. Although at his 80's, TP was so energetic with sharp eyes and rich voice. "I do not want to train a small TP FENG. I want to train a big TP FENG!" His first words grabbed me immediately. "What is a big TP FENG? A big TP FENG is like MAO Ze-Dong having his own Jing-Gang-Shan, his own power base." During my seven years of working with TP, he has repeated these words again and again, not only to me but also to many of his students and colleagues. These words have been carved deeply into our memory and affected my thinking of doing science throughout my life. TP's "Jing-Gang-Shan" theory is a very important advice for current young scientists. Some students now enter a laboratory demanding that the project will lead to a *Nature* or *Science* paper.

Although I admire their ambition, I have to say that it is a wrong attitude. The ultimate goal of doing science is to explore unknown, to seek truth. Of course, we should choose some very interesting topics to pursue and try to publish papers in high profile journals. However, publishing in *Nature* and *Science* should not be the ultimate goal. On the other hand, we should also reject the idea of publishing many low quality papers. Simple repetitive work without genuine novelty is a waste of time and money. TP's "Jing-Gang-Shan" advice is to tell us to seriously work in a field for a long period and publish a series of work, not just publishing a flashy paper. TP's reputation is not based on *Nature* or *Science* papers at all! It is rather his creative series of work on neuromuscular junctions that established his solid position at that time.

It is no doubt that TP FENG is one of the greatest physiologists in Chinese history. The "FENG effect" on muscle heat production during stretch made him famous when he was only 25 years old while working in Nobel Laureate A.V. Hill's laboratory. After returning back to China, a series of 26 papers on neuromuscular junction transmission and plasticity published in *The Chinese Journal of Physiology* further established his leading status in the field. Unfortunately, Japanese aggression during World War II and the Cultural Revolution after liberation greatly hampered TP's ability to conduct scientific research. However, TP was never let down by war or political persecutions. Being a great scientist, he believes that truth is above everything. Therefore, I think TP's legacy has three folds. The first is his scientific achievement. The second is his leading role in establishing Shanghai Institute of Physiology and promoting Chinese physiological sciences. The third is his seeking truth and never-bending spirit. I admire TP's great achievements, and even more admire his noble spirit in seeking truth throughout his life.

During my last year (1994) working with TP, he was already 87 years old. Although he started to show physical weakness, his spirit was still high. He wanted to learn more about patch-clamping, he wanted to learn more about mathematical modeling, he wanted to learn more about the mechanisms of learning itself. TP died too early! He should have lived till today to see how much progress Chinese science has made over the past 12 years. China's economic growth has injected unprecedented vigor into science and education. Today, despite the tragic mistake of dissolving the institute, students from former Shanghai Institute of Physiology are spreading throughout the world. Many of those students have now returned to China or established collaborations with Chinese scientists to promote scientific research in China. TP FENG's spirit will continuously inspire generations after generations of young scientists to explore unknown and seek truth.



Fig. 1. Te-Pei FENG (left) and Gong CHEN (right) in front of the Shanghai Institute of Physiology in 1993.