

The systematic research by the group has led to the original finding of the peripheral foreland basin system along the entire length of the northern Himalaya, extending from the Yarlung Zangbo Suture Zone in the center of southern Tibet to the eastern and western syntaxis. The timing of the foreland basin development confines the first India-Eurasia collision to occur along the central segment of the suture zone at 65 Ma, and then propagated to the eastern and western end of the Himalaya at 50 Ma. They reconstructed the uplift history of the Himalaya, Gangdese, and Central Watershed mountain ranges from the seafloor to the roof of the world, which answered the question about how the uplift of the Tibetan Plateau could exert effects on the processes and mechanisms of the environmental change. Based on their newly developed methodologies of deep Earth exploration, they discovered morphological structures of the Indian continent subducting northward beneath the plateau along the Main Himalayan Thrust. With these outstanding scientific achievements, this research group promoted the study of multi-layered tectonic evolution of the Himalaya.

