SICHUAN UNIVERSITY
AN INNOVATION POWERHOUSE IN WESTERN CHINA

Sichuan University is located in the heart of China’s Sichuan Province in the capital of Chengdu. The city has developed over the centuries into an important centre for commerce, education, transport and communication in western China.

Sichuan University is one of the oldest universities in the country, with its founding institution established as far back as 1896. The university was designated a national key university by the Chinese Ministry of Education for its excellence in education, research, and social impact, and it continues to host several key laboratories that receive financial and administrative support from the government. These include 13 national-level key laboratories and centres sponsored by the Ministry of Science and Technology, 17 national-level key laboratories and centres sponsored by the Ministry of Education and 3 national-level key laboratories sponsored by the Ministry of Health as well as numerous provincial-level key laboratories.

The laboratories, research centres and bases at Sichuan University have conducted projects of regional, national and international significance. According to Thomson Reuters’ Essential Science Indicators, which identify the most influential researchers, publications and institutions in a range of scientific fields based on their research output and impact, Sichuan University ranks among the top one per cent globally in five subject areas, while an additional five of its disciplines are ranked among the top five per cent worldwide. Having devoted considerable resources to the areas of teaching, learning and research, the university has gained global recognition and serves as a driver of innovation, propelling China into a new stage of economic development.

STATE KEY LABORATORY OF BIO THERAPY
The State Key Laboratory of Biotherapy (SKLB) was founded in 2005 and selected as one of the New Drug Creation and Development Integrated Platforms in 2008 under the New Drug Creation and Development Program managed by the Ministry of Health and the Ministry of Science and Technology. In April 2013, the SKLB became the National Collaborative Innovation Center for Biotherapy, which is supported by the 2011 plan implemented by the Ministry of Education and the Ministry of Finance.

The centre’s premises are divided between the medical campus of Sichuan University and the Chengdu Hi-Tech Zone. They occupy an overall area of nearly 70,000 square metres and are even now undergoing intensive growth and construction. The SKLB also takes advantage of the rich clinical resources available at the West China Hospital, Sichuan University — the largest hospital in China with 4,300 inpatient beds.

The centre excels in seamless integrating basic research with preclinical development and translational and clinical medicine for the discovery and development of innovative drug candidates. The establishment of an efficient and fully integrated technology chain in a single institute has proved advantageous in achieving the SKLB’s ultimate goal of improving the treatment of major human diseases, including cancer, cardiovascular diseases, obesity, diabetes, inflammatory diseases, neurological diseases and chronic autoimmune diseases, as well as infectious diseases such as hepatitis, AIDS and tuberculosis.

The SKLB has almost 100 professors, associate professors and assistant professors who...
are conducting well-funded, highly regarded, comprehensive and multidisciplinary research. These researchers are engaged in hundreds of projects focusing on, among other things, gene and cell therapy, vaccination, monoclonal antibodies, recombinant proteins, and the development of synthetic and natural small molecules for drug discovery. As a result of their dedicated study, the laboratory publishes over 300 research papers every year in peer-reviewed journals, including leading international journals such as the New England Journal of Medicine, Developmental Cell, Nature Medicine, Proceedings of the National Academy of Sciences of the USA, Cancer Research and The Lancet Neurology. To date, the laboratory has licensed over 50 patents in the commercial sector across China and transferred 45 potent candidate drugs to over 30 pharmaceutical companies for commercial development.

STATE KEY LABORATORY OF POLYMER MATERIALS ENGINEERING

The State Key Laboratory of Polymer Materials Engineering (SKLPME) was selected to become one of seven national pilot laboratories under the Key Discipline Development Project, which is supported by a loan from the World Bank. The SKLPME prioritizes research at the frontier of polymer materials science and engineering that has the potential to contribute to China’s national economic development. This includes basic and applied research on the structure and properties of polymers, processing theories and related technologies, and production and engineering, in addition to the development of high-performance polymer materials.

Researchers at the SKLPME have established principles of polymer blending and compositing, developed technologies for preparing polymer-based nanomaterials and created highly efficient polymer materials for application in oil and gas fields. Researchers at the laboratory have won numerous science and technology awards, published many scientific papers and books and patented several of their innovations.

STATE KEY LABORATORY OF ORAL DISEASES

The State Key Laboratory of Oral Diseases (SKLOD) was founded in 1936 as the first research department in China specializing in oral medicine, or stomatology. It was designated a national key laboratory by the Chinese Ministry of Science and Technology.

The laboratory is primarily engaged in basic research on the mechanisms and treatment of oral diseases with the goal of becoming a leading international laboratory in the field. Research activities at the laboratory focus on developing novel techniques for the prevention and treatment of tooth decay, advancing new dental materials and biomaterials, and understanding the mechanisms of malformation in the oral and maxillofacial area as well as the metastatic behaviour of cancerous epithelial cells that line the inside of the mouth. Researchers and postgraduate students at the SKLOD have access to the latest facilities and technologies, which cost RMB 80 million and occupy an area of 7,000 square metres.

STATE KEY LABORATORY OF HYDRAULICS AND MOUNTAIN RIVER ENGINEERING

The State Key Laboratory of Hydraulics and Mountain River Engineering (SKHL) became the country’s first national key laboratory in the field of hydraulic engineering, following authorization in May 1988 by the National Development and Reform Commission, formerly known as the State Planning Commission.

The laboratory was set up as an academic platform for hydraulic engineering and the study of mountain river environments to support projects in water conservation, hydropower construction and disaster prevention. The SKHL divides its research between five key objectives: the hydraulics of high-speed flow and dam engineering; mountain river dynamics and engineering; environmental hydraulics and mountain river protection; dam and reservoir safety; and hydroinformatics and new technologies in hydraulic engineering.

Between 2008 and 2012, the SKHL received one second-prize State Technological Invention Award, four second-prize State Science and Technology Progress Awards, and nine first-prize provincial- and ministerial-level allocations of the same awards. During the same period, the SKHL published 182 papers that have been included in Thomson Reuters’ Science Citation Index, 225 papers indexed by Elsevier’s Engineering Index and 13 monographs. The laboratory has also acquired 83 Chinese invention patents, 5 American invention patents and 8 software copyrights. Moreover, the SKHL has participated in the drafting of five volumes of technical specifications and standards.

East Gate of Jiang’an Campus