

Rise of biomaterials helps health and the economy

By **WANG XIN** in Chengdu
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China's biomaterials industry is expected to register a sharp growth in the next few years with revenues projected to rise as high as \$40 billion by 2015, Zhang Xingdong, president of the Chinese Society for Biomaterials, said during the World Biomaterials Congress that began on June 1 in Chengdu, Sichuan province.

The figure is estimated to surpass \$100 billion by 2020, he added.

The most important global meeting in the biomaterials industry held only once every four years, this year's congress focuses on new materials used in the field and regenerative medicine.

The young, fast-growing sector has a close connection to medical care and crosses frontiers to include new materials, cell engineering, modular biology and clinical treatment.

Zhang, also member of the Chinese Academy of Engineering, is himself a pioneer research scientist who uses tissue-inducing biomaterials to fix injured bones and teeth.

"Like a machine, tissues or organs

will wear out over time and need to be fixed," he said. "We are researching the repair materials."

Made from a diverse range of materials including ceramics, metals, polymers and composites, so-called tissue-inducing biomaterials can integrate into the human body. It is the design of the materials themselves, not conventional tissue growth, which brings improvement in health and well being, experts said.

The biomaterials industry is low energy intensive, high value and helps improve the quality of life, Zhang said, noting that clinical demand is driving its growth.

Despite the sluggish global economy, the emerging high-tech sector has maintained 7 percent average annual growth, he noted.

The industry generated \$150 billion in global sales in 2010, a marked surge from \$20 billion in 2000.

China accounted for about 6 percent of that global total, or \$10 billion in yearly sales, a small share that does not match its level of study and research, according to Zhang.

"We are at the forefront globally in

research in the field with related academic essays ranking at the top of the world," he said. "Otherwise, the congress wouldn't take place here."

It is the industrialization of research in China that lags far behind due to the shortage of investors, he noted.

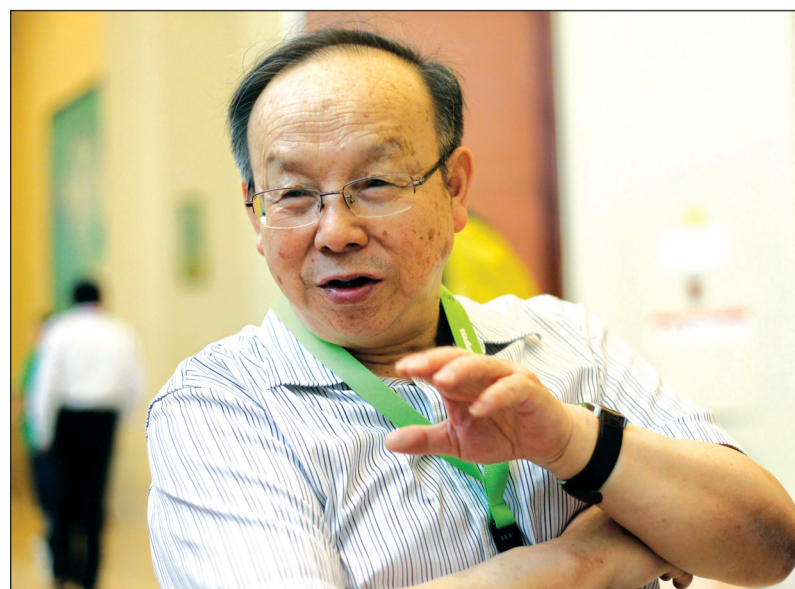
"The industry has yet to achieve economies of scale in production and broaden investment or financing channels," he said.

The academic called on domestic companies to improve their capacity for innovation and develop high-end biomaterials.

He cited the example of a vascular stent, which before cost 30,000 yuan (\$4,709) to 40,000 yuan because 90 percent of it was made from imported materials.

Now some 75 percent of the product can be locally made, bringing the price down to around 10,000 yuan, which makes it affordable to more people.

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PRESIDENT OF THE CHINESE SOCIETY FOR BIOMATERIALS



PHOTOS BY WANG JING / CHINA DAILY

Many foreign guests attend the World Biomaterials Congress that began on June 1 in Chengdu.

Chengdu's alluring lifestyle

By **XU XIAO** in Chengdu
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For Portuguese biomaterials professor Juao Mano, Chengdu before represented only giant pandas.

It was the same for a staff member at US publishing company Wiley-Blackwell.

With only one and a half days in Chengdu, she says she must somehow make the time to see the famed animals that symbolize China.

It is a common perception among foreign participants at the World Biomaterial Congress now underway in the capital of Sichuan province.

But Chengdu has other attractions due to its rich history, cultural relics and renowned spicy cuisine.

The fertile Chengdu Plain is known as *Tianfuzhiguo* in Chi-

nese, or Land of Abundance.

Archeological discoveries suggest the city dates back to 316 BC.

In later generations, its prosperity gradually expanded across the Sichuan Basin and then into western China. It is considered one of the five great metropolises in Chinese history.

Visitors to Chengdu today can pay a visit the Temple of Wuhou that memorializes Liu Bei, king of the Shu State during the legendary Three Kingdoms period (220-280) and his minister Zhu Geliang, considered one of the wisest of all ancient Chinese.

The humble residence of Du Fu (712-770), one of the great ancient poets, attracts many visitors every day who pay respect to the patriotic writer.

Hotpot and other local dishes are also on the must-do list for visitors to Chengdu. Shujiuji-

ang, one of the most well-known hotpots restaurants in the city, is packed full every day at dinnertime.

The modern side of the metropolis offers trendy and plentiful options for modern shoppers. A business complex to open on Chengdu's bustling Chunxi Street in 2013 will include popular retailer Lane Crawford, which offers a range of luxury brands like LV and Gucci. For those who think there is more to leisure life than shopping, a walk along Chunxi Street offers a glimpse of the beautiful local women for which the city is noted.

A Chinese saying warns: "Do not visit Sichuan when you are young". The pleasant and satisfying way of life could lure you into a life of indolence before you have made your mark. For most, it is a risk worth taking.