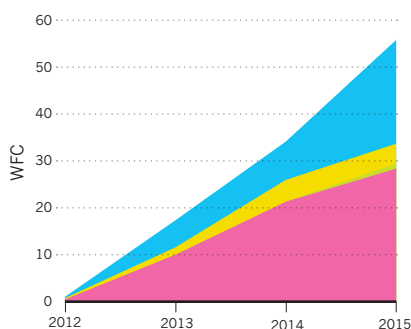


GROWTH SPURT

Since the Institute for Basic Science in South Korea was founded in 2012 its WFC has skyrocketed. In 2015, 189 papers were included in the index.

- Chemistry
- Earth and environmental sciences
- Life sciences
- Physical sciences



by 2021. About a third of these will be at a headquarters campus to be constructed in Daejeon; the rest hosted by universities and institutes around the country.

“The funding is generous,” says Jin-soo Kim, who heads the Center for Genome Engineering. “I don’t have to write a grant.”

South Korean leaders hope IBS will deliver on the dream of a scientific Nobel prize. “The phenomenon is aggravated by Japanese success,” says IBS president Doochul Kim, referring to the 21 scientific Nobels won by the country’s rival. “Korean people have always compared and tried to catch up to Japan. Politicians ask us, ‘What have you done?’”

South Korean president, Park Geun-hye, has also argued that IBS has many benefits. With Korea’s economy slowing, the technological rise of China, and renewed competition from Japan spurred by a weak yen, she is betting on IBS and basic science as a catalyst for growth. **MZ**

EAST CHINA NORMAL UNIVERSITY

CHINA

2012 WFC: 35.55

2015 WFC: 83.90

East China Normal University (ECNU) evolved from a teacher training university to a multi-disciplinary institute and is fast gaining a reputation for its world-class research. Between 2012 and 2015, the university’s contribution to articles in the index has more than doubled, lifting it more than 200 places in the Global 500 ranking to 142nd position in 2015.

The university prides itself on its

international collaborations, and its most recent partnerships have led to fruitful research. In 2011, ECNU and New York University joined forces to establish China’s first Sino-American university — New York University Shanghai (NYU Shanghai). A 2015 study by researchers at NYU Shanghai’s Institute of Brain and Cognitive Science found physical evidence that the brain arranges words in a hierarchy using a form of ‘internal grammar’. The findings, published in *Nature Neuroscience*, suggest the human mind can intuitively configure a string of words such as ‘ancient history is drinking tea’ into a structure that has meaning, such as ‘drinking tea is ancient history’. **SO**

HUNAN UNIVERSITY

CHINA

2012 WFC: 49.22

2015 WFC: 92.47

Hunan University is one of China’s oldest and can trace its roots back to the year 976 CE. The campus sits on the Xiang River in Changsha, the capital city of the province of Hunan.

The university has almost doubled its contribution to the index between 2012 and 2015, a rise attributed to its recruitment of top-level researchers, according to Weihong Tan, a professor of chemistry and biomedical engineering. In 2013, Hunan established the Institute of Chemical Biology and Nanomedicine under the direction of leading US scientists, Chad Mirkin from Northwestern University and David Walt from Tufts University.

Tan’s team are focusing on research in biomedicine, which he hopes will lead to new industries for the province. **SO**

SICHUAN UNIVERSITY

CHINA

2012 WFC: 44.88

2015 WFC: 83.22

Sichuan University’s position in the Nature Index has soared in recent years, climbing from 278th place in the Global 500 institutions ranking in 2012 to 145th in 2015. New facilities, well-funded salary start-up packages and accessible research grants have attracted eager young researchers to the university in Chengdu in southwest China. Fifty international researchers have been recruited in the past two years to the university’s National Key Laboratory of Biotherapy, which opened in 2005. The

multidisciplinary research centre enables discovery and development of innovative drug candidates.

“Basic research, preclinical development, translational and clinical medicine are seamlessly integrated,” says Wei Yuquan, who is director of the laboratory as well as the university’s vice president.

He says: “We want to bring disciplines together to try to solve the major problems in medicine, science and technology.” **SO**

KING ABDULLAH UNIVERSITY OF SCIENCE & TECHNOLOGY

SAUDI ARABIA

2012 WFC: 40.51

2015 WFC: 72.19

KAUST is more than just a university — it’s practically a city. Occupying 36 square kilometres on the Red Sea, KAUST is separated from conservative Saudi society. Courses are coeducational, women can drive and are not required to wear veils, and the campus has one of only two sanctioned movie theatres in the kingdom.

The graduate-only research university was founded in 2009 at the behest of the late King Abdullah. He hoped to create a premier institute to kickstart Saudi Arabia’s research scene — and to help develop clean

“We want to bring disciplines together to solve major problems in science and medicine.”

energy technology to wean it off oil. He left the university with an endowment estimated at US\$20 billion, and it recruited foreign researchers with start-up funds, reportedly worth up to US\$1 million

each, to set up labs. In the early days many faculty members left, claiming the university had failed to deliver on its promises. But the institution’s contribution to high-quality research had surged by 2015 to levels 80% higher than in 2012. **MZ**

NANYANG TECHNOLOGICAL UNIVERSITY

SINGAPORE

2012 WFC: 177.60

2015 WFC: 207.83

Nanyang Technological University is one of Asia’s research powerhouses, ranked 37th in the index’s Global 500. Most of the Singaporean university’s high-quality research output is in chemistry, but it has