Lilly pays \$50 million for Korean BTK

Eli Lilly of Indianapolis has entered an exclusive license agreement with Seoul-based Hanmi Pharmaceutical to develop and commercialize Hanmi's oral Bruton's tyrosine kinase (BTK) inhibitor HM71224. For \$50 million upfront and up to \$640 million in sales and development milestones, Lilly gains near universal rights to the compound for all indications. This is the second recent deal for BTK inhibitors. In March, AbbVie of Chicago, won BTK blocker Imbruvica (ibrutinib) after competitive negotiations to buy Pharmacocyclics of Sunnyvale, California, ended in a \$21-billion deal. Imbruvica was approved by the US Food and Drug Administration in November 2013 to treat mantle-cell lymphoma, and its approval was accompanied by blockbuster projections for the B-cell cancer treatment (*Nat. Biotechnol.* **32**, 113–115, 2014).

BTK is an enzyme involved both in normal B-cell development and B-cell leukemias. Lilly expects to develop Hanmi's HM71224 not for oncology but for autoimmune indications including rheumatoid arthritis, lupus, Sjogren's syndrome and related conditions. Hanmi has retained rights to the compound in China, Taiwan, Hong Kong and Korea, and has successfully completed a phase 1 study to treat autoimmune and other diseases.

The deal is a boost to the local industry. The Korean pharma market is already one of the largest in Asia, and over the last few years, the government has introduced measures to shore up biopharma growth. In 2013, the Korean government pledged \$9 billion over five years as part of the Pharma Korea 2020 project (*Nat. Biotech.* **3**, 866, 2013). Earlier this year, the Korean Ministry of Health and Welfare announced a \$123-million investment as the second phase of its Pharma 2020 commitment. These government

funds have provided support for small and medium-sized biotech enterprises and pharma companies to acquire promising drug candidates, build overseas sales and production networks, and run clinical trials. Tightening regulatory measures and ensuring transparency have also helped accelerate drug and medical device approvals.

Korean pharma and biotech companies are small, but increasingly active, says Sang Yup Lee, director of the Bioinformatics Research Center at the Korea Advanced Institute of Science and Technology (KAIST) in Daejeon. Of late, there has been "significant outreach overseas," by Korean companies, says Sophie Cairns, a life sciences analyst with IHS of Englewood, Colorado. Outreach is supported by the government's efforts that span the drug discovery pipeline from research through clinical trials.

Hanmi considers open innovation through partnerships one of the three most important growth engines for the company, along with new drug development and a strong presence in China. In addition to the new agreement with Lilly, Hanmi has global partnerships with Basel-based Novartis, Paris-based Sanofi and Kenilworth, New Jersey-based Merck. Other Korean life sciences companies have signed international agreements this year. Green Cross in Yongin signed a commercialization agreement with Nanolek of Kirov Oblast, Russia, to manufacture and commercialize biologics in Russia; financial terms were not disclosed. Four Seoul-based firms—JW Holdings, Chong Kun Dang Holdings, Boryung Pharm and BC World Pharm—signed a joint agreement worth \$200 million with Sudair Pharmaceutical of Sudair, Saudi Arabia. The deal entitled the Korean partners to export products, including antibiotics and anticancer drugs, and establish a manufacturing plant and clinical laboratory in Saudi Arabia.

Allison Proffitt Aiken, South Carolina

Around the world in a month

POLAND

The country's first venture capital fund dedicated to the life sciences raises \$42 million. The Joint Polish Investment Fund will invest in early and mid-stage medtech, mobile health and drug development companies in a country known for its services-oriented healthcare sector. The fund aims for a final close of \$70 million.

PUERTO RICO

AbbVie announces a \$30-million expansion of its biopharma manufacturing site in Barceloneta, which will create up to 100 new jobs over the next two years. AbbVie first established a manufacturing facility on the island in 1969. Today, the pharma operates three plants in Puerto Rico producing treatments for immunological, viral and metabolic disorders, and employing more than 1,000 people.

TURKEY

Japanese drugmaker Takeda pays 300 million Turkish lira (\$121 million) in an all-cash deal for Istanbul-based Neutec's portfolio of 13 drugs in the gastroenterology, respiratory, metabolic and musculoskeletal therapeutic areas with the acquisition of a Neutec subsidiary, Toplam Kalite. Neutec will continue to manufacture the products at its plant in Adapazari. Turkey's pharma market is set to grow by 6% annually over the next five years, outpacing most developed countries.

CHINA

The China Food and Drug Administration issues a final guidance on reviewing biosimilars. The guidelines state that biosimilars will be reviewed according to different technical criteria but are subject to the same new drug approval pathway as innovative biologics—an approach that differs from that in Europe and the US, which have both established independent regulatory pathways.

INDIA

The government launches an equity fund to accelerate entrepreneurship in biotech. The fund is administered by the Biotechnology Industry Research Assistance Council (BIRAC), a joint venture between the Ministry of Science & Technology and several business incubators and accelerators. To date, BIRAC has funded more than 100 young entrepreneurs, nearly 250 companies and startups, and 15 business incubators.