Korean pharmaceutical companies set to expand their presence in the global market

Pharmaceutical companies in the country are rapidly expanding investment to develop new groundbreaking drugs.

Furthermore, JW Pharmaceutical Corporation’s Wnt anti-cancer agents (treatment for acute myeloid leukemia) have almost reached phase 2 completion of clinical trials in the US.

VaneMed’s gene medicine (VM002) is going through phase 3 clinical trials as a treatment for lower limb ischemia and diabetic neuropathy. Its degenerative disc drug (YH144018) is also going through phase 2 clinical trials.

“Open innovation” to be actively utilized

It is estimated that many Korean pharmaceutical companies will utilize the research capabilities of foreign companies more actively when it comes to developing new drugs, although they can sometimes start from scratch by finding new chemical substances themselves. Hammii Pharmaceutical, for example, has been emphasizing the importance of “open innovation.” In fact, Hammii has been actively cooperating with biotechnology start-ups through various cooperative models. It now plans to secure a new engine of growth by developing next-generation drugs and innovative biopharmaceutical technologies. Open innovation will thus help expedite drug development and reduce development costs.

For instance, Hammii Pharmaceutical secured license for Allegra by investing USD 20 million as of January 2015 and is jointly developing Luminate. In August 2015, it developed a promising drug substance Repebo, an artificial antibody platform, in collaboration with a biotechnology start-up Repogen. It is expected that Hammii will continue to acquire shares of biotechnology start-ups.

On this note, in March of this year, Yuhan Corporation invested USD 10 million to form a joint venture company (JVC) called ImmunoOncio Therapeutics, LLC, with biopharmaceutical company Sorrento Therapeutics in the United States. Yuhan has a 30-year strategic investment relationship on other biopharmaceutical companies such as Roemer and Therigen Eire. It is expected that Yuhan will continue to invest not only in R&D but also in acquiring strategic licenses and expanding its drug portfolio, based on its sufficient cash reserve worth KRW 557.1 billion (USD 485.2 million).

In May 2015, Green Cross Holdings invested USD 7.5 million in a US-based biopharmaceutical startup Juventas Therapeutics, jointly with POSCO Venture Capital. Idong Pharmaceutical also signed a joint development agreement with Cellivery Therapies for the development of Parkinson’s treatment ICP-parkin. The agreement will allow the two companies to jointly develop a drug candidate ICP-Parkin by utilizing the macroporous gel to extend pharmacological action. Cellivery’s original technology, ICP-Parkin, targets the loss of dopaminergic neurons, the fatal symptom of the Parkinson’s Disease.

Government’s determination to nurture pharmaceutical industry

In our story yesterday, Lee Geun-hye this year, the Ministry of Health and Welfare announced its plan to push the biopharmaceutical industry as a new engine of growth for the Korean economy. The industry is expected to create 30,000 new jobs and KRW 65 trillion (USD 56.7 billion) in added value in 2016. It also announced that the market size of Korea’s bio-health industry will increase to the world’s 7th largest by 2017. To create more success stories similar to Hammii’s, the Ministry promised to invest KRW 150 billion (USD 138 million) in global healthcare funds to provide subsidies for Korean new drugs going global, to strategically nurture precision and regenerative medicine industry including stem cell bank, and to provide KRW 115.5 billion (USD 100.7 million) of financial support for research and development of medical devices. It’s clear that the government is well aware of the importance of the biopharmaceutical industry and its potential for growth. Whether the government accomplishes its goals this time or not, it will continue to nurture a world-class pharmaceutical industry.

Growth of Korean pharmaceutical companies on the world stage

<table>
<thead>
<tr>
<th>Globalization of Korean pharmaceutical companies</th>
<th>Emergence of Korean drugs</th>
<th>Emergence of global Korean pharmaceutical companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>New drug development through licensing agreements</td>
<td>Domestic innovation</td>
<td>Expanded development of new drugs through domestic clinical trials</td>
</tr>
<tr>
<td>- Entry of new and emerging markets</td>
<td>- Development of new global drugs</td>
<td>- Domestic innovation</td>
</tr>
<tr>
<td>- Overseas partnerships and joint agreements</td>
<td>- Domestic innovation</td>
<td>- Domestic innovation</td>
</tr>
</tbody>
</table>

Korean pharmaceutical companies have significantly invested in developing new drugs over the last 25 years. As 2015 was a notable year for Korean companies with many of them making a mark on the global pharmaceutical market with successful licensing and expanding their pipeline of new drugs, the government of Korea set to take center stage on the international level.

Over the next ten to fifteen years, Hammii Pharmaceutical and Green Cross are likely to emerge as strong global players. Other major pharmaceutical companies will also make much progress as they will focus on overseas markets. From 2020 to 2025, there is a high chance that “true Korean” drugs will be routinely tested and approved by the FDA to emerge. As Korea does not have its own distribution channel, these new drugs will be distributed through licensing agreements with global pharmaceutical companies. From 2025 to 2030, the independent distribution channels of Korean companies can be established, through which new global drugs developed in the country can be sold to customers around the world. By then, the Korean pharmaceutical companies will most likely have accumulated sufficient funds and global marketing know-how for establishing their own global distribution networks. If this scenario holds true, Korean pharmaceutical companies will become global players both in name and reality.

By Tae Ge Ha
Financial Analyst / SK Securities

*Cynical but true.*

---

Global drug development by Korean companies

Three years after the chemical substance patent system was first introduced in 1987, Korea developed its first drug, embarking on a long journey of development. More than 25 years have passed since then, and the country is developing drugs not only for its own market, but for overseas markets as well. If such trends continue on, Korea will be known as a strong global player in pharmaceuticals.

So far, Korean pharmaceutical companies have made profits by exporting their technologies to international pharmaceutical companies. In the future, however, Korean companies will earn profits by developing their own drugs through invested funds. Over time, these pharmaceutical companies will become more capable of developing new drugs on their own.

The history of drug development in Korea dates back to 1991 when SK Chemicals’ platinum complex anti-cancer agent (Omapla) was approved as the first new drug in Korea. In 2003, LG Life Sciences managed to receive the US FDA’s approval for its quinoline antibiotic Factevo, and released it as a new drug. Unfortunately, it did not reach commercial success.

In 2014, Dong-A STerre’s Sintaveri was approved by the US FDA as a new drug for its quinoline antibiotic Factevo, and released it as a new drug. Unfortunately, it did not reach commercial success.

A subsidiary of SK Holdings Co., Ltd., SK Biopharmaceuticals is developing its own anti-epileptic drug (YK03089) which already passed phase 2 clinical trials of the US FDA as the first of its kind in the world. SK Biopharmaceuticals is also developing anti-nociceptive and acute repetitive seizure treatments as global new drugs.