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How Korea Can Avoid Pitfalls Of Over-Reliance On Out-Licensing

Citeline's Pang Suggests Diverse Business Models For Korean Biopharma

by Jung Won Shin

An over-reliance on out-licensing as a business model may restrict the healthy growth of South Korean biopharma firms over the longer term, a Citeline executive told a recent symposium in Seoul.

Since *Hanmi Pharmaceutical Co., Ltd.* reached a series of major global out-licensing deals with multinational pharma partners in 2014-15, out-licensing has been a key growth strategy for the South Korean biopharma industry, which mostly lacks sufficient capital to pursue the expensive later-stage development of new drugs in international markets.

However, a global industry expert from Citeline noted that over-reliance on out-licensing in the longer-run may actually act to restrict healthy growth, as Korean firms miss opportunities to gain first-hand experience in the pre-commercialization development phase as well as in sales and marketing.

“Reliance on out-licensing is something like an addiction. It provides a short-term fix, but can end negatively. This can create a vicious circle that can be hard to escape, making it more difficult to achieve sustained long-term growth and maturity,” said Timothy Pang, managing vice-president of Citeline Consulting & Analytics, at a recent symposium in Seoul organized by the Korea Drug Development Fund (KDDF).

“So what can we do? Perhaps out-license in moderation, but also try to embrace that risk-reward equation where possible.”

He noted there may be other business models that allow for the greater healthy long-term development of the domestic industry and advised that alternative business models could

capitalize on Korean capabilities and scale.

“Out-licensing is positive, but is a curse as well as a blessing in the long-term, and may not lead to stable long-term industry growth and maturity.”

Even in the short-term, drug development is difficult and usually fails - so attractive-looking total deal values for successful out-licensing activities can turn out to be less valuable than hoped for.

As a result, industry players should consider diversifying their growth models to move away from an over-focus on out-licensing and choose their business models to match their size and strengths, Pang advised.

The biggest Korean drug companies could consider moving towards retaining their assets internationally and using novel drugs to become truly global players. For firms outside the top tier, providing services to the biopharma sector remains a potentially lucrative and consistent revenue source to fund R&D; contract development and manufacturing capabilities could be developed in tandem to fund in-house R&D.

Strengths, Weaknesses In Korean R&D Pipeline

Pang told the meeting Korean pipelines are roughly on a par with global levels in areas such as biologics, cell therapies, RNA and oncology, although there is notable domestic R&D activity in neurology and metabolic disorders, which are likely to create considerable growth this decade. The overall footprint in gene therapies and rare diseases is relatively small and proportionately less than elsewhere.

According to data from *Citeline* and *Pharmaprojects*, Korea accounted for about 10% of biopharma R&D globally and 23% within the APAC region, with about 2,200 active drug development programs across more than 850 companies.

“We think that this is a highly impressive performance given the relative scale of even the larger players within the Korean pharma industry to account for 10 percent of global R&D by asset

Key Takeaways

- Coming out of the pandemic, Korean alliance activity has cooled and this is also true in the wider APAC region, although Korean biopharma companies continue to partner with global players.
- While global financing remains at stubbornly low levels, APAC has felt the downturn in financing more severely, falling below pre-pandemic levels.
- Korean firms have not yet been able to attract the international investment that would help them compete in global terms.

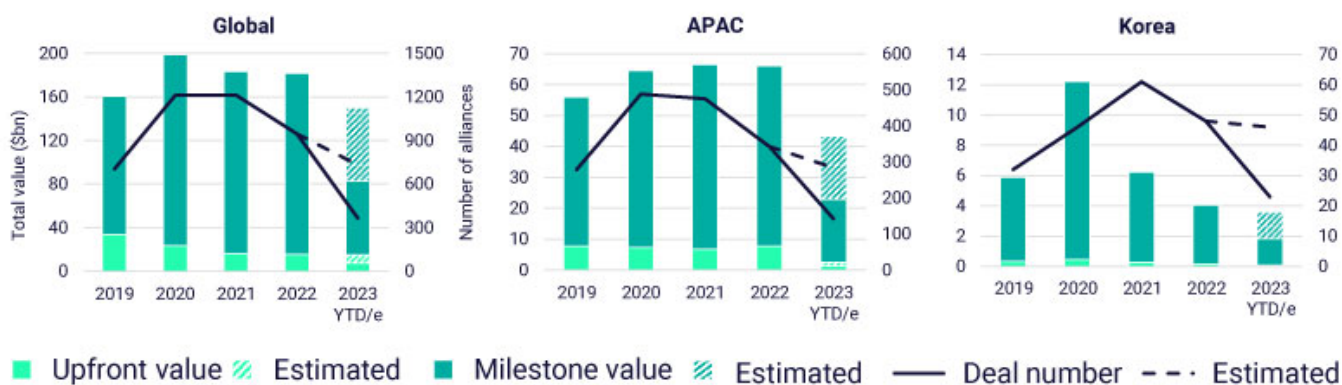
count and around a quarter in APAC, which would suggest Korean companies are certainly doing something right, at least on the R&D side," he said.

Korean R&D is seen as highly diffused, with the top five companies accounting for 11% of the total Korean pipeline, versus 40% for the top five companies in Japan. While *Takeda Pharmaceutical Co. Ltd.* is "an outsized force" in the Japanese pipeline, "the figures are quite stark in the comparison."

Drop-Off In Alliances

Even though there has been some fall from the spike in deal-making and alliances during the height of the pandemic, as expected, "I think it is fair to say that if we compare the situation in Korea with that overall in APAC, or in the global scene, we can see that the drop off in those alliance volumes has been rather more severe in Korea than in the global markets," Pang noted.

Biopharma Alliance Trends, 2019-2023

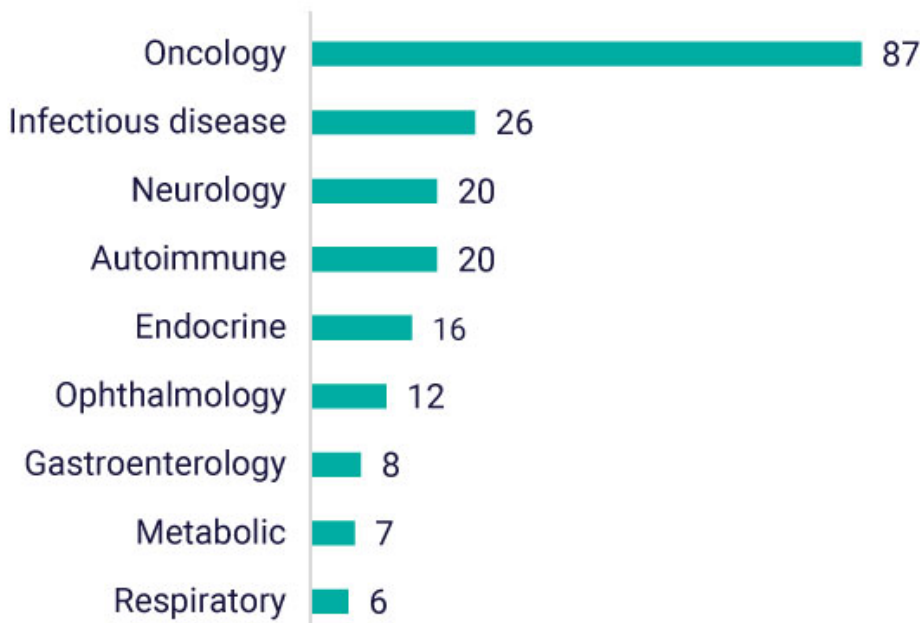


Source: Citeline, Biomedtracker. 2023 figure is year-to-date on pro forma/pro granted basis.

Taking a look at alliances by therapeutic area, oncology accounted for around 40% of Korean deals since 2019, based on alliances where one or more party is headquartered in Korea. Pang pointed out that in terms of alliances, the number of deals involving metabolic drugs from Korean firms is relatively small considering the focus on metabolic diseases in company pipelines.

"Perhaps this gives some suggestion in terms of a certain disparity between the therapy area focus of some of the firms in Korea and maybe the assets that are most attractive, certainly to foreign firms who are seeking to be active in deal-making with the Korean industry."

Korean Alliances By Therapy Area*



*Therapy areas with ≥ 5 alliances since 2019

Source: Citeline, Biomedtracker.

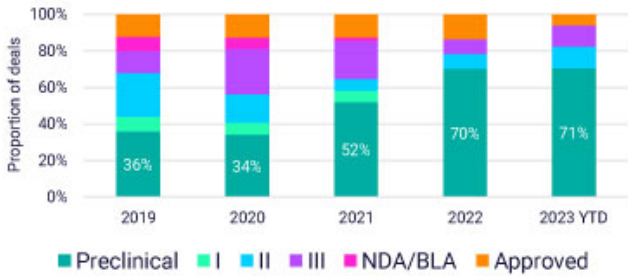
Preclinical Stage Deals, Financing

By development stage, deals for assets still at the preclinical stage accounted for around 70% of Korean firms' alliances over the past couple of years, significantly ahead of both China and Japan. About 60% of deals involving Chinese companies were at the preclinical stage, while for Japanese firms the levels was 50-55%.

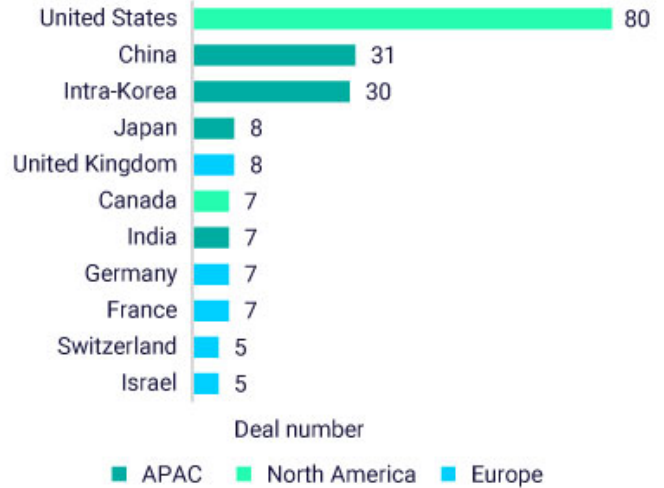
Pang noted that a trend towards deal-making at the earlier stages of R&D is increasing, reflecting pharma's preference to engage early with prospective partners, while late-stage assets are more commonly acquired through M&A transactions.

Meanwhile, the US is by far the largest source of partners for Korean firms, followed by China and then other domestic firms.

Korean Alliances By Development Stage



Top Partner Locations For Korean Alliances



Source: Citeline, Biomedtracker.

In terms of financing, Korea attracted only around 5% of fundraising within APAC. This would suggest that perhaps there's a period of education required before venture capital, private equity and other types of investor are fully comfortable with the longer time frames and the risk profile of investment within the biopharma arena, Pang told the KDDF meeting.