

Welcome, Global Pharma

By VIVEK WADHWA

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Even five years ago, it would have seemed unimaginable for a Japanese pharmaceutical company to pay nearly \$5 billion to acquire one in India. Daiichi Sankyo's bid for Ranbaxy last week shows how rapidly the global competitive landscape has changed. Media reports have highlighted the value of Ranbaxy's generics business; but what the Japanese are really buying is the energy, vitality and innovation of India's new research and development labs. We are at the beginning of a new wave of globalization.

The pharmaceutical sector is the latest example of India's and China's climb up the value chain. While China is working its way up the ladder from manufacturing and clinical trials, India is starting with high-level R&D. As this happens, Indian and Chinese companies are becoming increasingly important players in the global mergers and acquisitions game, both as targets and as acquirers.

India is playing a strategic role in the early stages of drug discovery, and China dominates in preclinical testing, animal experimentation and manufacturing. Indian companies such as Ranbaxy, Advinus Therapeutics, Nicholas Piramal and Jubilant have negotiated long-term deals with Western pharmaceutical companies to discover and develop new chemical entities. These deals often involve cost and risk sharing. A Chinese company, Hutchison MediPharma, has formed a similar partnership with Eli Lilly.

As a result of these collaborations, Indian and Chinese scientists are rapidly developing the ability to create their own intellectual property. A study released last week by the Kauffman Foundation, "Globalization of Innovation: Pharmaceuticals," which I co-authored, found that in 2006, 8.5% of all pharmaceutical patent applications filed through the World Intellectual Property Organization included at least one inventor in China, and 5.5% included one or more in India. This proportion has increased fourfold since 1995.

Indian and Chinese firms can't do it all yet, however: These firms lack the ability to advance a drug through the entire clinical-trial process and market it worldwide. These companies seek licensing agreements with, or make complete drug sales to, multinational pharmaceutical companies that have the necessary resources. That is why Ranbaxy needs a larger partner like Daiichi Sankyo.

As they gain scale, Indian and Chinese companies are increasingly shifting their focus to domestic markets. Pharmaceutical companies are targeting diseases that are prevalent in the developing world and underserved populations, but are neglected by multinationals. Ranbaxy, for example, is developing an antimalarial drug called Arterolane, which is currently in phase II clinical trials. They are also developing pediatric formulations for HIV/AIDS that make these

easier to administer. Advinus Therapeutics is developing cures for tuberculosis, dengue fever and malaria. AstraZeneca's China subsidiary is focused on drugs for liver and gastric/esophageal cancers, which are relatively common in China.

These developments bring the promise of cheaper drugs. Dr. Reddy's Labs, for example, is developing a "poly pill" which combines the four most common medications taken by heart patients into a single pill. Their Managing Director Satish Reddy says his company could market this for less than \$30 per patient per year in the U.S.

There are likely to be many ethical and legal issues that arise from these developments: differing standards for human and animal testing, counterfeit drugs and intellectual property protection, to name a few. India's pharma industry got its start by copying Western drugs, after all. And the deaths caused by Baxter International's blood thinner heparin -- reportedly contaminated by an ingredient manufactured in a plant near Shanghai -- show the potential risks. But as India and China improve their oversight of these industries and enforce intellectual property laws, these challenges are likely to be surmounted.

We are likely to see more deals like the Ranbaxy/Daiichi Sankyo merger -- in a diverse set of industries. Western multinationals will increasingly look for acquisitions in India and China. And as Indian and Chinese companies gain greater confidence and scale, they will likely buy their way into global markets.

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