

## There are no winners in the clinical trials race in Asia

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Over the past few decades, research on clinical trials has enjoyed a

rapid boom around the world. According to CenterWatch, an established source of information about clinical trials, an estimated 100,000 clinical trials are being carried out at any one time in more than 100 countries.

The Pharmaceutical Research and Manufacturers of America (PhRMA)'s 2011 profile also estimated that the top 20 pharmaceutical companies globally invested a total of \$96 billion on research and development (R&D) for new medicines in 2010.

Against this backdrop of growth, Asia has risen as a force to be contended with in the clinical trials sector. There are a number of good reasons why the region has become the focus of companies and investigators conducting clinical trials to test new drugs.

The pharmaceutical market in Asia is the fastest growing in the world, given that more than 60 percent of the world's population is living here. The sheer size of its market equates to wide availability of talent and resources.

Many Asian countries are also experiencing aging population and the rise of the middle class. This means that chronic and lifestyle diseases may become new epidemics in this region. There are also diseases such as cancers of the liver, stomach and nasopharynx, which are unique or particularly prevalent among certain ethnic groups in this part of the world.

Clearly, Asia is rich with research opportunities and this could potentially yield drugs with far-reaching impact for the world.

Beyond the research pool and resources, the biggest reason why biomedical R&D companies as well as contract and clinical research organizations (CROs) are flocking to Asia could well be the region's massive and rapidly increasing expenditure on drugs.

### **The lure of Asia**

According to a forecast by IMS Health, Asian countries will feature prominently in the top 20 for spending on drugs by 2016. Japan and China are ranked second and third, respectively, though they are still some distance away from the traditional first-placed country, the US. India was ranked eighth, South Korea 15th and Indonesia 19th.

In its 2011 study on overall country attractiveness for the consideration of offshore locations for clinical trials, consultancy firm A T Kearney ranked China and India first and second, respectively. Other prominent Asian mentions were Taiwan in the 12th place and Singapore in the 14th place.

Indeed, many Asian countries recognize the enormous potential of attracting life sciences and medical R&D to their shores, and are ramping up what they have to offer.

Several countries - China, South Korea, Malaysia and Singapore - have emerged as prominent competitors in the Asian clinical trial race.

### **A closer look at the competition**

China has enormous potential, thanks to its huge market. The country also boasts of top-notch research institutions, lower operating costs, a huge treatment-naïve population keen to take part in trials, and access to data for different ethnic groups.

The country has demonstrated a strong commitment to the sector. In 2010, the Chinese State Food and Drug Administration asked domestic companies to increase their R&D investments. The Chinese government also made plans to invest some \$1.5 billion in new drug development between 2011 and 2016. During the 2008-09 global financial crisis, China continued to invest in R&D infrastructure, consequently attracting many multinational companies.

Yet China faces some obstacles. For one, English is not widely-spoken. Ethics and regulations are still a murky area and outside of Hong Kong, it is still a lengthy process to obtain clinical trial approvals.

South Korea is another leading clinical development hub in Asia to look out for.

The country established the Korean National Enterprise for Clinical Trials in 2007 to meet the increasing demands for clinical trials and to raise national competitiveness. Today, the country has more phase I sites than any other country in the world. Seoul is also one of the most popular Asian cities in the industry for phase II and III trials.

South Korea also embraces the use of electronic medical records and has a highly educated and experienced research staff pool. The biggest challenge it faces is probably the language barrier as English is still not widely spoken.

Malaysia is another up-and-coming player. It has rolled out new initiatives, spearheaded by its Ministry of Health to streamline clinical trials application processes, encourage and build a pool of investigators and key opinion leaders, and fast-track product registration.

It may win over market share from its neighbor, Singapore, by virtue of a bigger pool of patients and lower registration fees.

How does Singapore stack up?

Singapore is an increasingly popular destination for pharma and biopharmaceutical companies, and it does have many strengths. For one, it provides excellent communication and transportation infrastructure. It also offers strong intellectual property protection, a rigorous regulatory regime and a stable political and civic environment.

Indeed, the city-state has attracted much interest. According to the Singapore Economic Development Board, seven of the world's top pharmaceutical and biotechnology companies, including Roche and Sanofi, have invested in commercial-scale manufacturing facilities in the country. Singapore also has a base of 20 leading CROs and pharmaceutical companies such as Quintiles, Bayer and Pfizer that manage regional clinical trials from the city-state.

Bucking the global trend of developed nations cutting back on research funding in tough economic times, the country, which was emerging from its own economic downturn, committed to investing some S\$16.1 billion in research funding for the next five years in 2011. This is an increase of nearly 16 percent compared to the previous five years.

However, Singapore will find it hard to compete based on size and scale of operations. Being small, the country offers limited sites and experiences a higher saturation of clinical trials in the population.

What it offers instead is rich intellectual capital in a well-connected environment, embodied in the world-renowned Biopolis campus and the growing academic medical centers.

### **No clear winners yet**

The clinical trial market and its nimble players are clearly moving fast and converging in Asia.

While Asia offers golden opportunities, its diversity in culture, economic progress, regulations and political systems imply that each country has its fair share of both strengths and weaknesses.

The interplay between various stakeholders and factors will be dynamic and it will be interesting to see which country emerges at the forefront of clinical trials.