

## BIO 2014: Global innovation shifting to China

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**San Diego:** Multinational biotech companies and bioclusters of Boston, California and Germany are increasingly making their way in favor of Asian clusters, particularly China and innovation is now led by start ups and mid-market companies, says the 3rd annual JLL Global Life Sciences Report released at the BIO convention here.

"The biopharmaceutical industry is undergoing a significant transition as start-ups, specialty firms and mid-tier companies become the leading source of product innovation," said Mr Roger Humphrey, executive MD of JLL's Life Sciences group in the Americas. "This shift is reflected in the changing the physical landscape of biopharmaceutical operations, including real estate."

The report said innovation has returned with a vengeance in 2013 after the uncertainties of the previous two years caused by depleted product pipelines and America's healthcare reform process. According to the report, start-ups and smaller companies are filling up the gap left by top biotech companies giving up innovation to cut costs. "Many of these infrastructure facilities have been taken up and retrofitted by startups in many countries," the report said.

As a sign of shifting trends in generation of intellectual property, Asian companies are beginning to dominate the filing of new patents. The number of life science patents filed by companies in the Europe and USA have declined in 2012 and 2013. On the other hand, just China reported 43 percent increase in patents filed under the PCT (patent cooperation treaty) guidelines. Asia's share of PCT patent applications were 5 percent in 1990. Now it has jumped to 26 percent in 2013, according to the JLL report. North America's share has declined to 41 percent from 50 during the same period.

Overall, life sciences accounted for 13.5 percent all patents filed under PCT. This means, more than 26,000 patents applications were filed in life sciences in 2012. "Notably, the three countries with the most year-over-year growth in PCT applications - China, Korea and Japan, are also among the least collaborative countries," noted Mr Erin Bovee, lead researcher for the JLL report. "These countries appear to be seeking self-sufficiency in innovation."

Similar trends are visible in the area of talent development too. China is now training more people in life sciences than the US

and many top European nations.

Overall, according to the industry, the global life science industry is accelerating the shift of activities and infrastructure to China and other Asian nations to reduce costs. This is also leading to increase in lay-offs of employees in the western nations. Two-thirds of top life science companies plan to shift production and other infrastructure facilities to China and Brazil. An example is Pfizer relocating its antibacterial research unit from the US to Shanghai, China.

Life sciences PCT applications grew by **3.7% from 2011 to 2012**. Leading growth clusters include:

China: **42.8%**  
Russia: **36.8%**  
Switzerland: **20.8%**  
Japan: **11.2%**  
Germany: **7.8%**  
Mexico: **7.1%**  
The Netherlands: **6.2%**  
Brazil: **5.6%**



Source:  JLL