

TALENT CLUSTER SNAPSHOT:

Life Sciences, China

LOIS FREEKE



CONTENTS

04	The Cluster
06	The Market
08	The Shift
10	The Employment Market
12	The Opportunity
14	The Challenge
17	The Talent Gap
21	The Solutions
26	Conclusion

THE CLUSTER

The Life Sciences cluster in China is aligned with the distribution of both population and wealth.

The key R&D bases for the pharmaceutical industry have been in Shanghai and Beijing—close to China’s top five universities. Smaller clusters exist in the cities of Tianjin and Guangzhou as well as within the provinces of Hebei, Shandong and Zhejiang.

Research parks have been built to support budding science and technology enterprises, including:

- **Zhangjiang Hi-Tech Park:** established in 1992 in Shanghai, this is a hub for both national industries and start-ups looking to benefit from its incubator program. A division of a major pharmaceutical company opened a 28,000-square-foot biopharmaceutical technical and training centre here in 2011 to support manufacturers in the area with Good Manufacturing Practice for Drugs (GMP) compliance.
- **Suzhou BioBay:** located in Dushu Lake Science and Innovation Education District, the park spans over nine square miles and offers innovation incubator and accelerator support.

CHINA'S LIFE SCIENCES INDUSTRY

4 major clusters of innovation

7,500 life science companies

500 universities and institutes

200+ life science incubators

100+ life science parks

3,200 novel drugs patented

250,000+ industry staff

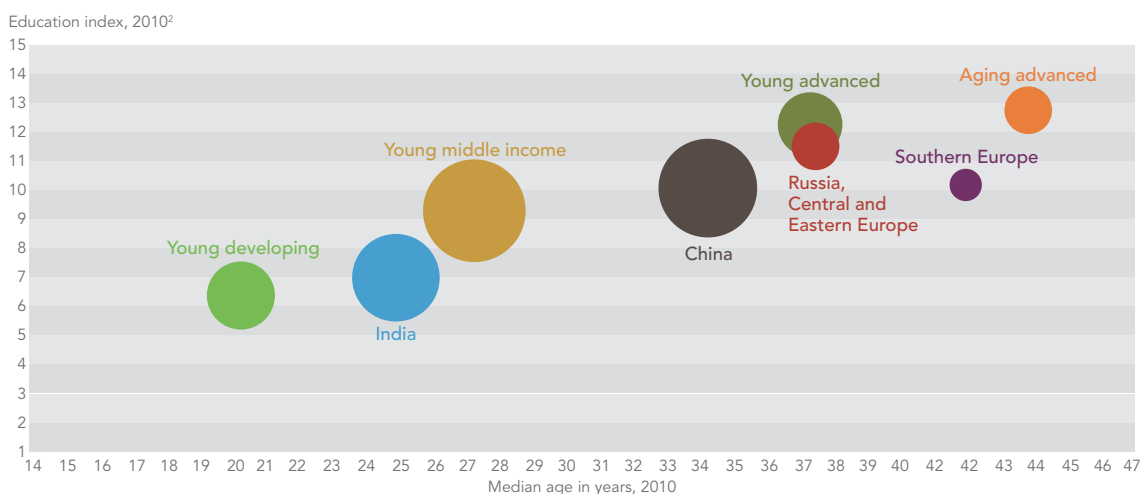
150,000+ life science graduates each year

Source: ChinaBIO



While the US is still the global leader in Life Sciences, countries like China have recognized that Life Sciences represents a high-wage, high-growth industry. China's well-qualified, but ageing working population presents both opportunities and constraints for the industry. As depicted here in this McKinsey graphic¹, China finds itself poised between the young, emerging workforces of India and other Asian countries, and the older but highly educated workforces of the West:

GLOBAL LABOR MARKETS FALL INTO EIGHT CLUSTERS, EACH DISTINCTLY POSITIONED IN TERMS OF AGE PROFILE AND EDUCATION ATTAINMENT



- Size of circle indicates size of cluster's working-age population in 2010
- **Young developing**
322 million workers
<US\$3,000 GDP per capita
- **Young middle income**
640 million workers
US\$3,000–US\$20,000
GDP per capita⁴
- **Young advanced**
290 million workers
US\$25,000–US\$50,000
GDP per capita⁵
- **Aging advanced**
145 million workers
US\$30,000–US\$45,000
GDP per capita
- **India**
469 million workers
US\$3,000 GDP per capita
- **China**
783 million workers
US\$7,000 GDP per capita
- **Russia, Central and Eastern Europe**
141 million workers
US\$10,000–US\$20,000
GDP per capita⁶
- **Southern Europe**
60 million workers
US\$20,000–US\$30,000
GDP per capita

¹ http://www.mckinsey.com/insights/employment_and_growth/the_world_at_work
² Education-attainment levels weighted by years of schooling and by working-age population; median age weighted by total population.
³ All GDP per capita expressed at 2005 purchasing power parity; for "young developing", Morocco is an exception (US\$7,100).
⁴ Except United Arab Emirates (US\$28,500).
⁵ Except South Korea (US\$23,500).
⁶ Except Czech Republic (US\$22,300) and Ukraine (US\$6,000).
Source: UN International Labour Organization (ILO); UN Population Division (2010 revision); International Institute for Applied Systems Analysis (IIASA); McKinsey Global Institute analysis.

THE MARKET

China is already one of the top 12 bio-tech destinations in the world, ranking first in the Asia-Pacific region.

China's Life Sciences market has grown dramatically, accounting for 5.6% of the global market in 2011. By 2015, it is expected to be the world's second largest market after the US. China's annual health care spending is estimated to be approximately \$217 billion annually (est. 2010).

Experience to date suggests that China's emergence as a leading destination for Foreign Direct Investment (FDI) is due to both the revenue and operating margin opportunities. Apart from a large population with a growing middle-class, the People's Republic has:

- an improving public health care system due to increasing healthcare expenditure as a percentage of GDP;
- a fragmented market with no dominant domestic companies; and
- a low-cost manufacturing sector with improving regulatory and industrial safeguards.

It is estimated that China's Life Sciences market has roughly 4500 pharmaceutical manufacturers and 8000 distribution companies, with a relatively even distribution among state-owned, private domestically owned and foreign-owned enterprises.

Cost no longer the only reason to invest

Historically, western pharmaceutical companies enjoyed 30-50% cost-savings by relocating the manufacturing of intermediates, APIs, starting materials and some finished drugs to China. Although some of this cost advantage has been eroded by inflation, rising wages, currency appreciation and challenges to the many tax reductions and rebates that China has traditionally offered to its own exporters, other improvements in the regulatory and market conditions have offset these.

Current talent availability, an improved funding environment via government support, as well as the increase in quality facilities have changed the manner in which China competes. As such, China no longer has to rely solely on its reputation as a low-cost destination to attract industry interest and investment.

TOP 10 TOTAL PHARMACEUTICAL MARKETS IN THE WORLD, 2005-16

\$Billion—all figures in US billion

2005		2010		2016	
Total	\$496.1	Total	\$711.3	Total	\$812–\$962
BRIC	\$25.9	BRIC	\$96.6	BRIC	\$244–\$284
BRIC %	5%	BRIC %	14%	BRIC %	30%

Rank	Size \$B	Rank	Size \$B	Rank	Size \$B
1. USA	249.2	1. USA	322.0	1. USA	360–380
2. Japan	84.9	2. Japan	111.2	2. China	+1 166–186
3. France	33.3	3. China	+8 66.7	3. Japan	-1 106–136
4. Germany	33.1	4. Germany	46.0	4. Brazil	+2 42–62
5. Italy	21.3	5. France	-2 41.3	5. Germany	-1 39–49
6. UK	16.4	6. Brazil	+4 29.9	6. France	-1 32–42
7. Spain	16.1	7. Italy	-2 28.6	7. Italy	23–33
8. Canada	16.9	8. Spain	-1 22.7	8. India	+6 24–34
9. China	14.1	9. Canada	-1 22.4	9. Russia	+2 23–33
10. Brazil	11.8	10. UK	-4 21.6	10. Canada	-1 19–29

Emerging markets  Placement movement

Source: IMS Health report, May 2012. Spending in US\$ with variable exchange rates.

THE SHIFT

The economic shift towards emerging economies has meant large changes in the Life Sciences sector, and China remains a key opportunity market.

A number of large, multi-national companies have already migrated non-core activities and/or low-margin products away from Western European and North American locations to lower-cost destinations around the world (in particular India and China).

R&D expansion

China is in the midst of an exciting R&D expansion and is attracting investment from both foreign and local firms. In 2011, cross-border partnerships increased in size and number, with over 60 co-development deals being announced. Thus, it has become increasingly urgent for western Life Sciences companies to include China as an integral part of their global R&D and commercialization strategic plan.

Major 2011/2012 cross-border deals included:

- J&J acquired Guangzhou Bioseal Medical in 2012
- Pfizer drug JV with Zhejiang Hisun Pharma to produce branded generics
- Merck and Bristol-Myers Squibb JV with Simcere to develop cardiovascular drugs
- AstraZeneca acquired Guangdong BeiKang Pharma
- Merck-Serono JV with CRO Pharmaron to develop new drugs
- Merck-Simcere JV to develop branded pharmaceutical products for chronic diseases

Analysts forecast China's health care spending will increase nearly 20% annually from 2010 to 2016. In addition, China's pharmaceutical market is predicted to grow to \$127 billion USD by 2015. China's government has pledged to invest 2 trillion yuan (\$308.5 billion USD) on biotechnology, which is considered a "strategic pillar" industry, over the next five years. It has targeted a modernization of its regulatory structure and published a new set of GMPs effective March 2011. The aim is to overhaul the country's healthcare system and bring 90% of the country's 1.3 billion people under a primary medical insurance program.

At current levels, government investment in Life Sciences will be double that of the US (and four times as a share of GDP). The country's recent \$60 million USD purchase of 128 cutting-edge genome sequencers through the Beijing Genomics Institute (BGI) has given it the world's largest next-generation sequencing capacity—with more sequencing capacity than the entire US or about one-third of total global capacity.

MULTI-NATIONALS ARE TAKING BOLDER STEPS INTO THE AREA

- AstraZeneca has recently announced plans to invest \$200 million on a new plant in China (its biggest-ever investment in one production facility). The plant will turn out injectables and oral drugs for the domestic market China.
- In March 2011, Pfizer announced plans to relocate its antibacterial research unit from Groton, Massachusetts to Shanghai. The company said the move brings it closer to important hubs for science and technology, and gives it better access to the Chinese drug market.

THE EMPLOYMENT MARKET

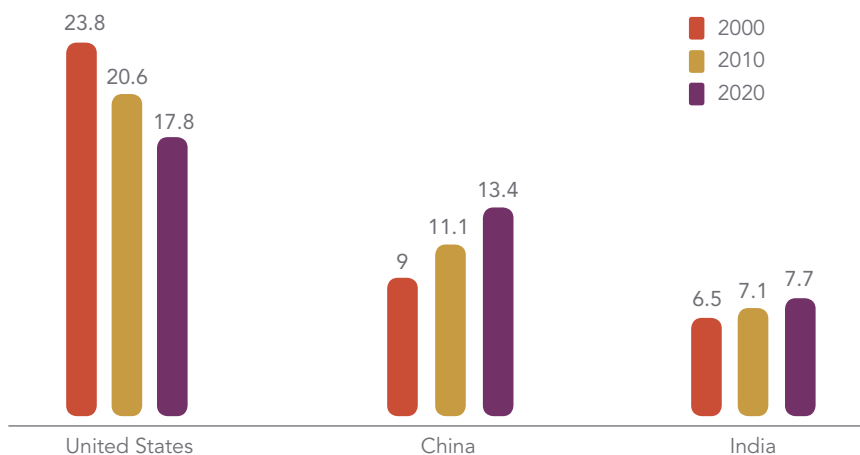
The race is on to identify more high-performing graduates in key science disciplines to fill the growing employment opportunities.

Since implementing the compulsory nine-year education policy in 1986, the amount of schooling that China's growing student population receives has increased to six years of primary school and three years of secondary school. Coupled with the restoration of graduate education in 1978, there have been no fewer than 3,180,000 Master's degrees and 380,000 Doctoral degrees awarded across the country.

The country's tertiary student intake has already grown by around 12% annually from 1999-2009. And, a report released by the Center for American Progress and The Center for the Next Generation revealed that, based on the current population and enrolment trends, China's share of the world's college graduates will increase to more than 13% by 2020. According to a McKinsey Global Institute study, this will increase to 30% by 2030.

SHARE OF THE WORLD'S COLLEGE GRADUATES

Comparing the United States, China and India, 2000 to 2020



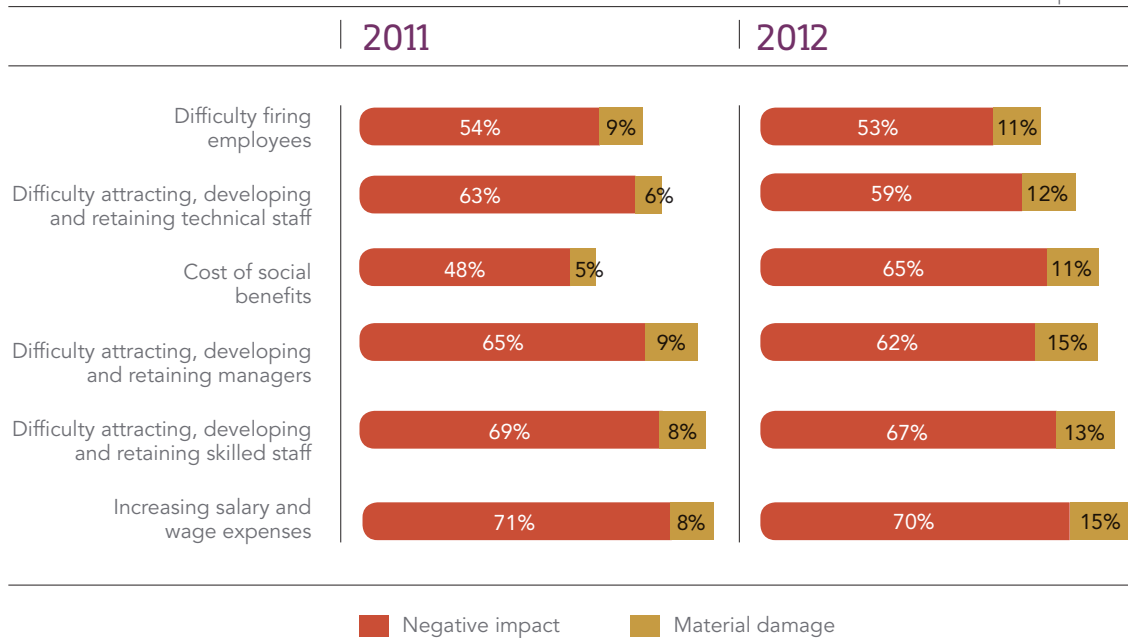
What is of particular interest to those in the Life Sciences sector is the number of STEM (science, technology, engineering and mathematics) graduates China is making available to the market. Some 41.6% of China's 2011 graduates earned degrees in the science and engineering disciplines.

However, producing enough adequately trained talent for the Life Sciences industry remains a challenge in China. A lack of qualified postgraduate supervisors to teach students is one legacy issue, although ministry data shows the number of supervisors is increasing.

China has implemented strategies to enhance their research and development capacities in the fields of biotechnology, information technology, mobile communication and genetic research. This has boosted focus on STEM subjects, and coupled with its demographic pattern, is expected to have a profound impact on labor markets, both national and international.

HOW DO THE FOLLOWING HUMAN RESOURCES ISSUES AFFECT OUR BUSINESS OPERATIONS IN CHINA?

Sample size: 2011=266 respondents
2012=303 respondents



THE OPPORTUNITY

China has a huge and growing research market, mostly associated with university-based research.

As mature markets in many areas of the developed world become saturated, global Life Sciences companies are aware that growth and sustained competitive advantage may be increasingly dependent on the effective planning and execution of an emerging markets strategy.

These markets, particularly the BRIC nations, have experienced significant and rapid change. By 2016, one projection is that all four BRIC nations will be in the top 10 global pharmaceutical markets, and that they will constitute 30% of that market.

To take full advantage of this shift, China must address the core issues of:

- the rapidly ageing workforce
- lack of training and teaching staff to raise tertiary education standards
- facilitating greater access to employment opportunities to new graduates

Raising the bar

As China increases its presence in the global biomedical sector, strategies to train and mentor larger volumes of students to a higher standard will likely be considered, including attracting both Western scientists and Western-trained Chinese scientists back to China to teaching roles. Western pharmaceutical companies are also showing greater interest in investing in the long-term education of young Chinese scientists in their subsidiaries or partners in China to secure their talent pipeline.

Facilitating access to the job market

In 2009, sociologist Lian Si coined the term “ant tribes” to describe China’s post-’80s generation of “low-income college graduates who live together in communities with poor living standards.” This phenomenon started around 2000, when the government stopped looking for jobs for their graduates, allowing them to seek employment for themselves. Before, all students would return to their hometowns, and the government would provide them employment.

According to the Asian Social Science Journal the number of ‘ants’ has already surpassed 3 million, with a rapidly increasing rate of 0.2-0.3 million people a year. The phenomenon now not only “exists in the first-tier Chinese cities like Beijing and Shanghai, but has also spilled into the second-tier Chinese cities such as Wuhan, Guangzhou, Xian, Chongqing, Taiyuan, Zhengzhou and the economically developed third-tier cities.”⁷ Mostly composed of science, engineering and finance graduates, close to 46% of ants spend more than they earn, and 80% have no savings.

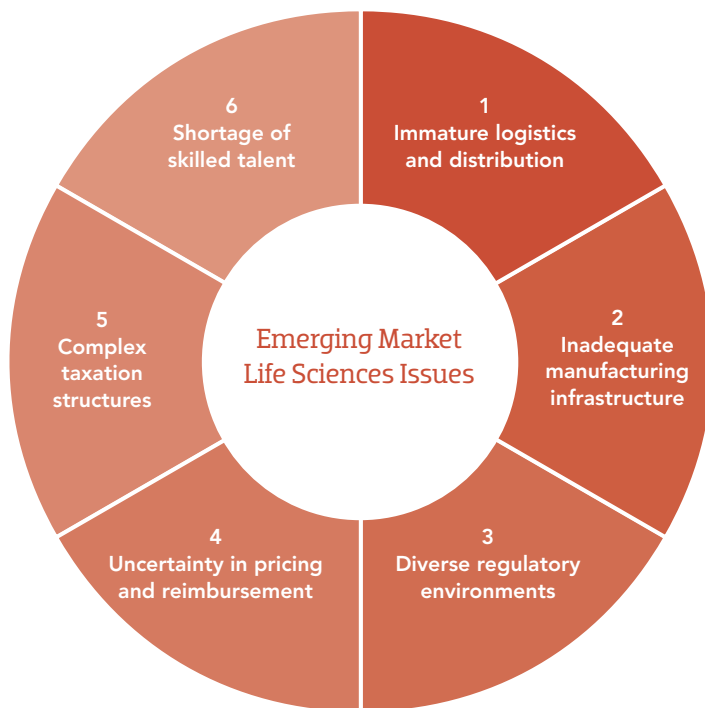
This reveals the country’s lack of infrastructure to properly place their graduates, since a bulk of its new jobs come from the manufacturing, industrial and exporting sectors, which favour blue collar workers over white collar. A lack of affordable housing has also exacerbated the problem.

Given the size and value of this talent pool, real opportunities exist for organizations and authorities to facilitate faster, better access to employment opportunities prior to graduation.

⁷ www.ccsenet.org/journal/index.php/ass/article/download/24350/15405

THE CHALLENGE

The need to develop home-grown innovation and a well-trained workforce is the key to capturing the opportunities in China's Life Sciences industry.



The lean human capacity models that are practiced by large global pharmaceutical companies have resulted in a reluctance to hire untrained individuals by companies of all sizes. These practices have resulted in training gaps that need to be addressed by employers, education institutions and policy makers, particularly here in China.

Beyond this, the key challenges for the industry include:

1. Immature logistics and distribution: although blue-collar labor is cheap and plentiful, quality assurances and reliability throughout the supply-chain is an on-going challenge.

2. Inadequate manufacturing infrastructure: the Chinese government has invested heavily in building new, state-of-the-art facilities to attract investment, however, there are broader constraints regarding guaranteed access to the right materials and the right skill-sets.

3. Diverse regulatory environments, uncertainty in pricing and reimbursement, and a complex taxation structure: China's still relatively weak protection for intellectual property, and GMP compliance are a significant issue for pharmaceutical companies. In Taiwan and Hong Kong there is a stronger tradition and understanding of working with Western companies, and a greater respect for legal agreements and contracts. Many distributors in both countries offer direct access to the China market. Working with the SFDA to obtain approval for distribution of new medical devices in China still poses some challenges, but can be accomplished successfully with proper planning and oversight.

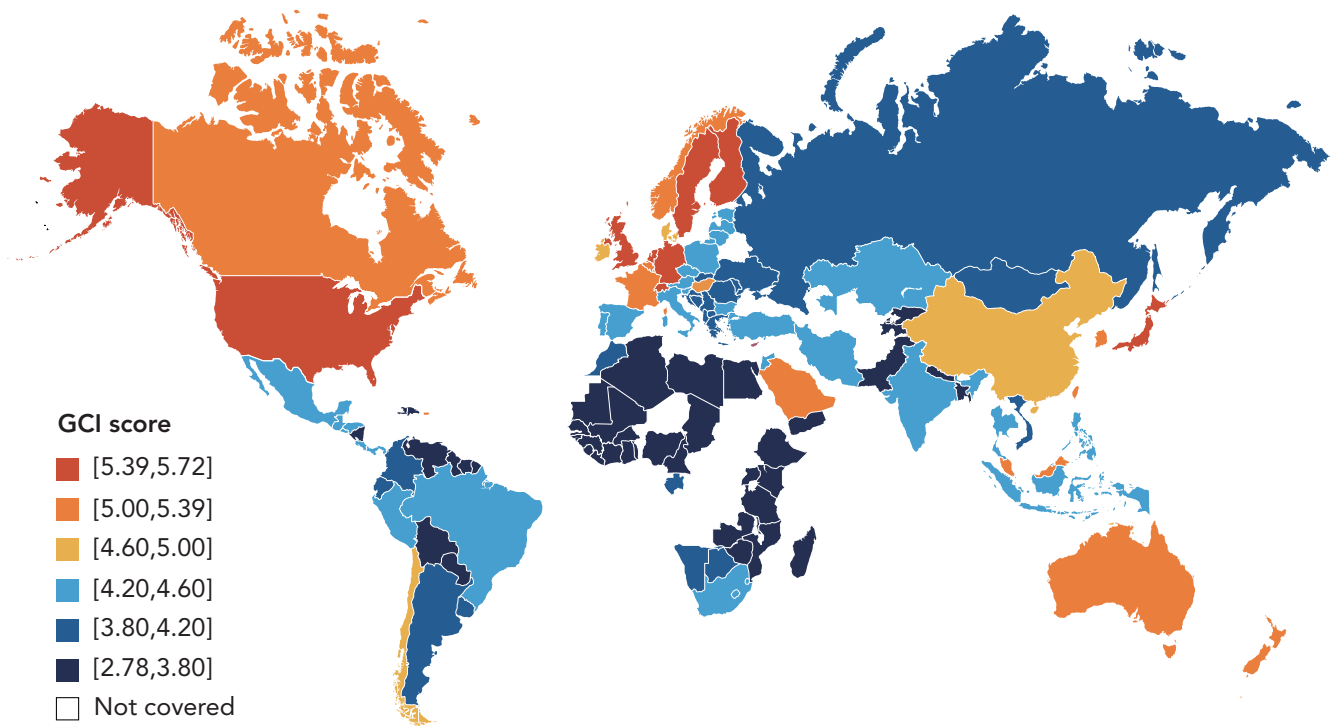
4. Shortage of skilled talent: the structures required to provide a reliable pipeline of skilled talent to China's burgeoning Life Sciences industry is being developed, but demand is still outpacing supply. Even though the emerging markets produce plentiful talent from their universities, too few candidates are industry-ready, and demand is continuing to increase. China also faces the real issue of a workforce that will begin a rapid ageing cycle within the next five years. Access to specialized knowledge and skills relevant to the industry poses a real challenge, and will likely drive up salary expectations for those with high-quality skills.

The shortage of skilled talent is the key concern of many global Life Sciences companies. As the *China Business Climate Survey Report 2013* pointed out, 'labor costs are the top-ranked risk faced by surveyed companies (47%), and shortages of qualified employees and managers ranked third and fourth (31% and 30%), highlighting the tightening labor market.'⁸

⁸ <http://web.resource.amchamchina.org/cmsfile/2013/03/29/0640e5a7e0c8f86ff4a380150357bbef.pdf>

China's rising competitive profile

This heat map identifies the competitiveness "hotspots" according to the Global Competitiveness Index (GCI), which measures 12 competitiveness indicators, including labor market efficiency and innovation. The map reveals that the hotspots remain concentrated in Europe and North America, but that China is a rising force.



THE 12 PILLARS OF COMPETITIVENESS

- | | |
|--|---|
| 1st pillar: Institutions | 7th pillar: Labor market efficiency |
| 2nd pillar: Infrastructure | 8th pillar: Financial market development |
| 3rd pillar: Macroeconomic environment | 9th pillar: Technological readiness |
| 4th pillar: Health and primary education | 10th pillar: Market size |
| 5th pillar: Higher education and training | 11th pillar: Business sophistication |
| 6th pillar: Goods market efficiency | 12th pillar: Innovation |

THE TALENT GAP

The challenge for China is the speed of economic transformation—the increase in demand for skilled and suitable workers is rapidly outpacing the increase in supply.

As the emerging markets grow, the need for new skills increases such as cold chain management, biologics manufacturing, demand planning and pricing analytics.

China's working-age population increased by nearly 3.45 million people in 2011 to more than one billion. However, the proportion of working-age people is also starting to fall in relation to total population, representing 74.4% of the population in 2011. According to GK Dragonomics, the number of new entrants into the workforce is already falling and will decline by 30% in 2020 compared to 2010. The shrinking workforce is partly attributed to the one-child policy established in 1979 – producing a declining young talent pool and a booming number of seniors in the market. It is expected that by 2030, 17% of the Chinese population will be aged 65 or older.

National pride a competitive advantage in the war for talent

As the Chinese economy grows, so do local firms, which continue to aggressively recruit the country's top talent, enticing them with opportunities for professional growth while instilling a sense of national pride. Local companies are becoming more competitive and as such, multi-nationals are losing candidates to local firms.

As a recent article from the Executive Board⁹ pointed out, "Chinese authorities are becoming much more aggressive in attracting overseas Chinese talent back to their home country. Due in part to accelerated construction of high-tech business incubators, the number of Chinese students studying abroad who returned rose a massive 38% between 2010 and 2011." Most of these students expect to and want to work for a 'local' company, so long as the wages and benefits compare.

⁹ <http://www.executiveboard.com/recruiting-blog/page/4/>

THE TALENT GAP

Government regulation also often favours local firms on multiple fronts, for valid reasons. Critically, it is harder for OTC companies to register new drugs, which can limit their ability to expand in China and compete for talent.

While talent shortage remains an emerging trend in many countries, the challenge for China is that the velocity of the economic transformation means the increase in demand for skilled and suitable workers is rapidly outpacing the increase in supply.

Where the competition is

Typically, companies are competing in the tier 4-6 cities across China. As a result, some multinational Life Sciences companies are expanding their internal sourcing team to balance their need to source talent from external vendors.

Other key trends include:

- OTC companies prefer candidates from Consumer industry due to their well-developed channel resources; however, attracting and retaining them becomes a challenge.
- Sales Representatives are the most commonly sought-after jobs for Life Sciences companies to hire in the Chinese market.
- Senior scientific candidates are limited in China, MNCs often look for candidates in the overseas market, of which the US and EU are the most popular markets. It's a common case for nearly all companies to seek overseas Chinese candidates who speak both English and Chinese and understand both cultures.

What candidates are looking for:

- A strong China (or regional Asia-Pacific) strategy
- Career development prospects and plans
- Background about the line manager and team
- Good salary package
- A company with a strong brand and demonstrable market leadership

Hot positions (and most difficult to retain)

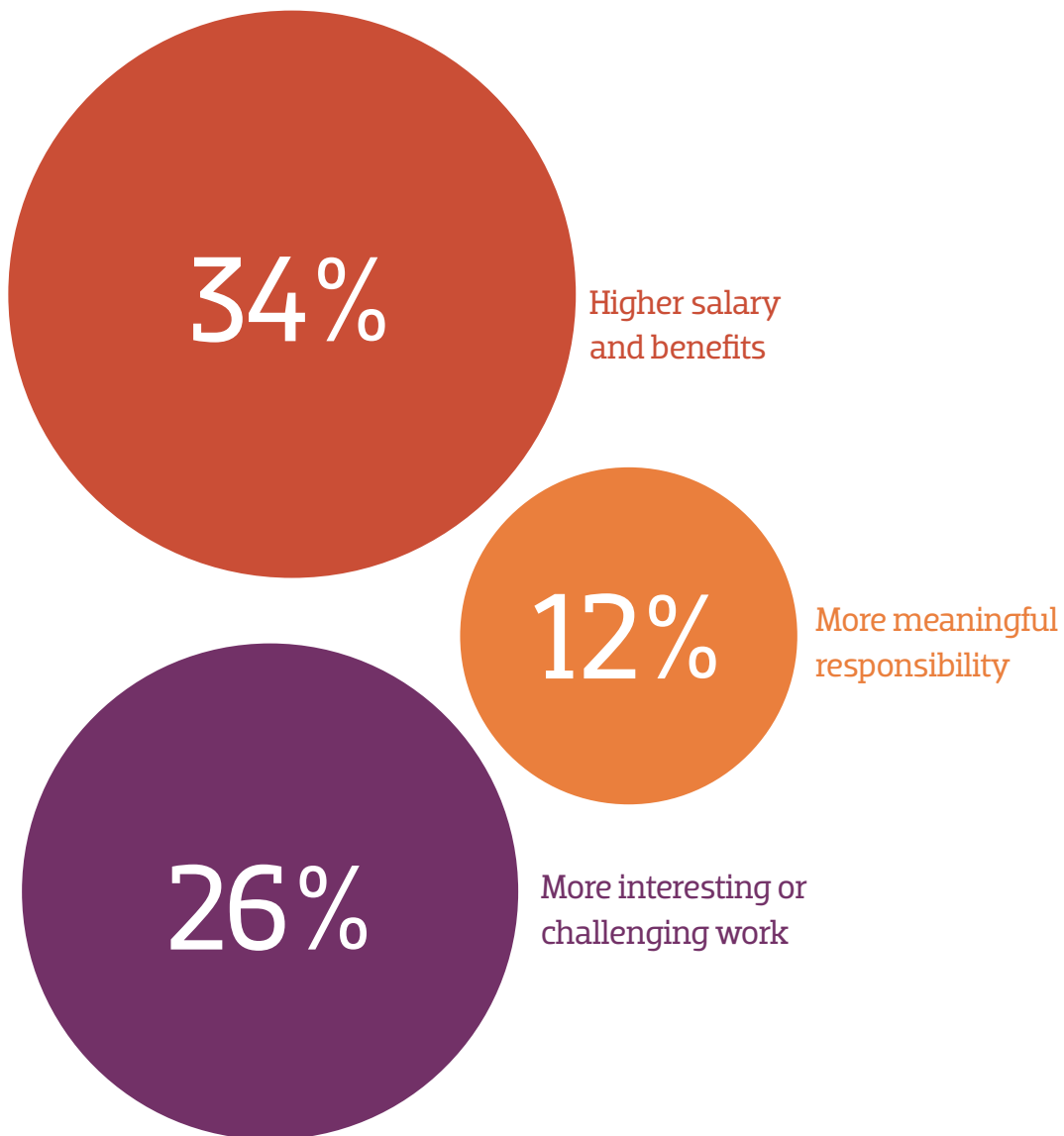
Medical

- Operations (Mechanical)
- Regulatory Affair
- Registration Affairs (RA)
- Sales and Sales Management
- Marketing
- Product Management
- Technical Sourcing
- Quality
- R&D

Pharmaceutical

- Government Affairs
- Regulatory Affairs
- Sales and Sales Management
- Marketing
- Medical Affairs
- R&D Consumer
- Brand Manager
- Channel Development and Management

What do employees want?



THE SOLUTIONS

Companies must focus more intensely on talent strategies to ensure their success in emerging markets.

To adequately address the talent constraints in China's Life Sciences market, firms must plan their talent strategies differently. As consulting firm Accenture points out, one way to do this is to integrate the firm's skill and capability requirements with an overall customer centricity strategy—one that considers customer clusters. Companies also need to think about sourcing and managing talent across borders, and be prepared for the culture and skills training required in order to be successful in this developing market.

Address churn factors

While talent management is a critical priority, most global organizations currently operate without a strategy to guide their efforts. A global survey, of over 200 Life Sciences senior executives and HR directors revealed that 90% of Life Sciences executives identify talent management as a key priority. However, almost three quarters (72%) of organizations are failing to deliver this in practice, operating without an active strategy in place.

Pay is still an issue

A key issue regarding talent management is the need to directly address the retention factors at play. Although salaries have increased by 8% to 10% per year, Chinese employees are still highly dissatisfied with their pay.

Multi-national companies operating in the region need to be particularly mindful of salary expectations, particularly as they become less attractive alongside larger, prosperous local firms. China's talent used to flock to multinational companies to get better jobs and compensation, but today Chinese enterprises are competitive in attracting talent. Chinese firms can now offer salaries matching (or sometimes exceeding) MNCs and they also have the financial allure

THE SOLUTIONS

of a potential IPO. According to China Briefing, Chinese workers also look more for short-term cash compensation, since employees in cities consider their work to be temporary and plan to return to their hometowns once they have saved some money.

The world's largest research-based pharmaceutical company in US uses additional salary incentives in the following way to improve retention:

1. Every employee receives an additional 10% of basic salary every month as a fund, saved in another debit card
2. The employee can withdraw 50% of the money if he/she has stayed with the company for 3-5 years, 75% for 6-9 years, 100% for 10+ years (while NONE is paid out for less than 3 years)

Work-life balance and autonomy now important

In 2011, the turnover rate in China was 20% as workers began shifting their focus from career prospects to work-life balance, ahead of the global double-dip recession and China's economic slowdown. While pay is important, it's no longer the only consideration.

Organizations that come "from outside" must also be acutely aware of the sense of pride and nationalism that talent feels in joining state-owned enterprises and contributing to China's growing worldwide success and respond accordingly.

It seems that Chinese enterprises are now perceived to offer greater security and loyalty to their employees compared to MNCs. These firms also give employees more decision-making freedom, and this empowerment can be attractive — and they've marketed this fact very effectively. In fact, Chinese firms have aggressively courted world-class Life Sciences talent, with the result that at least 80,000 Western-trained PhDs in Life Sciences have returned to China to work in industry or academic institutes.

MNCs' glass ceiling concept, where career advancement opportunities of Chinese employees are perceived to be given to Western/other nationalities, and cultural/language barriers will hinder efforts to foster company loyalty among locals unless adequately and transparently addressed.

Consider fringe benefits

Traditionally, it was expatriates who enjoyed generous compensation packages with various allowances and benefits. However, due to a growing demand for skilled local workers, more and more Chinese employees have gained greater bargaining power and are requesting more “fringe” benefits as part of their package, which can include anything from a take-home computer to a serviced apartment. Among the most popular benefits are those listed in the table below.

Current Benefit Trends	
Supplemental retirement/savings plans	<ul style="list-style-type: none"> • Often include features that allow employees to withdraw part of the account balance during employment (for housing, education, financial hardship, etc.) • Some companies offer this benefit
Employee health and wellness programs	<ul style="list-style-type: none"> • Includes health risk assessments, preventive care, EAP, and vaccinations as one of the most popular programs • Most companies providing these programs are multinationals that provide wellness program globally
Flexible benefits and employee choice	<ul style="list-style-type: none"> • Employees get to choose the benefits they want, within a budget • Targeted to increase ROI of benefits spending and improve employee engagement

THE SOLUTIONS

Also, employers based in larger cities can attract migrant Chinese workers by offering them assistance in their Hukou applications (household registration record identifying a person as a resident of an area).

Some employers are even considering implementing the “teachable fit” strategy, or appointing people without job skills, but who have the potential to learn or grow.

Build a leadership pipeline

It is important that growth positions go to the people who will benefit most—the people with the highest potential for the next level.

A leadership pipeline strategy develops this by ensuring leaders at each organizational level can grow and advance within the limits of their capacity and motivation. A pipeline strategy also grooms a few select people for the next level of management through special training, job experiences, and coaching.

In most rapidly growing organizations in China, the progression of individuals through the leadership pipeline to top positions is too slow to meet the organization’s needs and the expectations of the best potential local leaders. Acceleration pools are one way to fast-track the few people with the capacity and motivation to rise to the top relatively quickly.

Acceleration pools, also known as high-potential or high-flyer pools, operate independently of the leadership pipeline. Pool members receive special training and mentoring, as well as the best assignments, enabling them to stretch their skills and show what they can do.

(From: “Developing the Next Generation of Chinese Business Leaders,” China Business Review)

Know what motivates

Even with leadership development strategies in place, organizations must know what will motivate employees to want to stay on and attain management positions. Among the points required to achieve this are:

- The ability to raise employees’ profiles with key organizational leaders and expose them to an influential group as a way of encouraging them to stay on and learn more. Show them what they will be part of.

- Provide them with skills and experience that will bolster their value and improve their personal portfolio.
- Provide written plans with attainable development objectives so that employees know what they're going to get by staying. Follow up and track their progress regularly.
- Provide metrics to track development progress and ensure someone is responsible for realising the employee's plan over time.
- Consider the whole person in developing the plan. Allow them to have input and help them to shape the career they see themselves having.

SALARY SCHEMES IN THE MARKET

Company	Base Salary	Bonus
A UK leading healthcare research and manufacturing company	13 months	AIP Bonus (Like Saving Plan)
A global biopharmaceutical company in US	13 months	2-3 months
A top leading pharmaceutical company in US	13 months	1-2 months
A global integrated healthcare leader headquartered in France	13 months	2-3 months
The world's third largest healthcare company headquartered in Switzerland	12 months	20% of base salary
A science-led global healthcare company headquartered in UK	12 months	2 months
World's largest research-based pharmaceutical company in US	12 months	2-3 months
A global enterprise which specializes in healthcare, agriculture and high-tech materials	13 months	2.7 months (Max)

CONCLUSION

The Life Sciences sector in China is expected to grow significantly in 2013/14 and beyond. Due to economic growth and continuous increases in health care expenditures, the country's standard of living has improved significantly, increasing awareness of personal health as well as the demand (and ability to pay) for more sophisticated health care services.

As such, there are many career opportunities for both western scientists and western-trained Chinese scientists who will be instrumental in training and developing a biotechnology workforce to meet the rising demand. Consequently, western pharmaceutical companies have started investing in the long-term education of young Chinese scientists in their subsidiaries and partners in China.

In the next five years we will see more of these four trends:

1. Operations shifting from mature markets to lower-cost emerging markets
2. Controlling costs will be key to profits and margins
3. New business models to make the most of both mature and emerging markets
4. Increased investment in staff training by MNCs

As a result, established companies are looking to countries like China to be drivers of future revenue. Companies are seeking to shift operations to take advantage of the cheaper, skilled STEM labor in these markets. As such, talent is a critical component of China's ambitions in the Life Sciences industry.

The number of Chinese undergraduates studying in the Life Sciences surpassed US levels five years ago. China's universities produce more graduates and post-graduates in Life Sciences than any other country in the world. And, among all foreign nations, China boasts the highest number of recipients of US doctoral degrees awarded in the biological sciences. Yet, China needs not just educated, but experienced talent, now.

The strategies and workforce models that companies competing in this space deploy today will ultimately determine their success tomorrow in what is a high opportunity, but challenging market.

ABOUT THE AUTHOR

LOIS FREEKE is Director of Life Sciences China for Kelly Services, Inc., a leader in workforce solutions. Lois is a British recruitment professional with more than 14 years' experience in China, including over 8 years in operations and sales management roles. She has spent 3 years in Hong Kong and more than 2 years in Australia. Lois manages all of Kelly Services' lines, including permanent placement and RPO, providing total workforce solutions to local and global Life Sciences clients. She is also responsible for growing and developing the China team and liaising with global and regional accounts to develop the China Life Sciences business. She graduated from university in the UK with a Bachelor's Degree (Honors), and is a Certified Professional Career Coach. She is also licensed by Reach as a Certified Personal Branding Strategist, a Certified Online Identity Strategist and a Certified 360 Personal Brand Assessment Analyst. Lois is a frequent media resource on issues pertaining to the talent market and is conversant in Mandarin Chinese.



ABOUT KELLY SERVICES®

Kelly Services, Inc. (NASDAQ: KELYA, KELYB) has maintained a leadership position in workforce solutions since 1946 based on a valuable premise: investing in people. Serving clients around the globe, Kelly® provides employment to more than 560,000 employees annually. Kelly has been active in the China market since 2007. The eight offices in Greater China provide specialist mid to senior permanent recruitment and Recruitment Process Outsourcing. Specializations in recruitment cover Accounting, Automotive, Banking & Finance, Chemical, Consumer & FMCG, Healthcare & Life Sciences, Industrial & Manufacturing, Human Resources, IT&T and other main industries.

kellyservices.cn

marketing_info@kellyservices.cn

weibo.com/kellyservices



This information may not be published, broadcast, sold, or otherwise distributed without prior written permission from the authorized party. All trademarks are property of their respective owners. An Equal Opportunity Employer. © 2013 Kelly Services, Inc.

KELLY[®]