IBM Institute for Business Value

Collaborative innovation

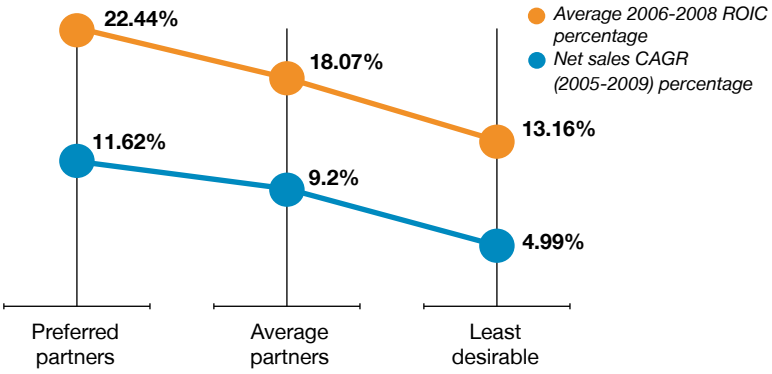
Partnering for success in the life sciences

Overview

The ability to tap new sources of innovation is becoming more important than ever, as declining R&D productivity, the "patent cliff" and intense generic competition all take their toll on Big Pharma. If the industry leaders are to collaborate with biotech companies as effectively as possible, they will need to create explicit strategies and operating models for capitalizing on external R&D. They will also need to build a supporting information infrastructure and master the skills required to conduct networked R&D.

The returns on collaboration

Biotechnology is making a growing contribution to the development of new medicines, but this isn't the only reason why Big Pharma should collaborate with its smaller brethren. The latest biopartnering study conducted by IBM and Silico Research shows there's a link between popularity as a partner and financial performance. The seven biopharmaceutical companies biotech firms have most wanted to work with over the past four years are also those with the strongest financial records. Between 2006 and 2008, they grew faster and delivered better returns than the companies that were deemed the least desirable partners.[1]



Sources: IBM Institute for Business Value analysis of financial data provided by Thomson Reuters and Hoovers accessed August 18, 2010, or contained in annual reports.
Note: We have analyzed the results from our 2006, 2008 and 2010 studies to identify preferred, average and undesirable partners. Preferred partners are the seven companies that, on average, enjoyed the highest rankings in all three studies. Average partners are the six companies that were middle-ranked, and undesirable partners are the seven companies that commanded the lowest rankings.

Figure 1: **The most popular partners are also the companies that enjoy higher sales growth and deliver better returns.**

Our 2010 study assesses how well the 24 biggest biopharmaceutical companies interact with small biotech firms and academia. Four companies consistently rank "top of the pops." In addition to excelling at the basics, these organizations have developed strategies for externalizing their R&D. Another three companies have made huge strides over the past two years. Conversely, several companies have fallen back and some routinely tag along at the rear.

Development expertise and partnership management skills still count for a lot. But this year's study shows that biotech executives now put more weight on scientific expertise and partnering culture, and less on the financial package, than they did in 2008. Academics have similar priorities, although they value corporate reputation and remuneration more highly than biotech executives do. So how can the industry leaders make themselves more attractive to prospective partners, as the importance of external R&D rises?

Create a strategy and target operating model with collaboration at its core

They should start by establishing a strategy and target operating model to capitalize on external R&D. The strategy must explicitly support collaboration and be sponsored by top management.

Build a collaborative infostructure

The next step is to establish an information infrastructure – or "infostructure." Modern technologies like cloud computing are making it increasingly easy to work together regardless of location or time zone.

Prepare for a future of networked R&D

Finally, the industry leaders should adopt a more networked approach to R&D. In collaborative R&D, there are clear boundaries between an enterprise and its external partners. In networked R&D, by contrast, the boundaries are porous.

Permeable boundaries

Demand for safer medicines, better outcomes, more accountability and greater value from the life sciences industry is increasing. Any biopharmaceutical company that wants to fulfill these expectations will have to build R&D networks with permeable structural and informational boundaries so that it can tap the knowledge of the scientific community at large.

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How can IBM help?

Life Sciences R&D Transformation Solution – Business Model Innovation Strategy (Biopartnering) – We help our life sciences clients develop innovative R&D strategies driven from the intersection of business, science and technology. We address our clients' foremost R&D business challenges with deep knowledge of relevant scientific disciplines, emerging technologies and business insight. Alongside IBM Research, IBM Global Business Services works closely with our clients to solve problems in modelling and simulation, nanotechnology, proteomics and other scientific areas. Core to our work is deploying biopartnering strategies and driving innovation beyond an organization's own R&D walls by tapping into the wealth of knowledge and expertise that resides in other large companies, smaller biotechs and academia. We can help an organization assess its current bio-collaboration, funding and IP model and map out the transformation from a vertically integrated business to a network orchestrator to achieve improved R&D outputs.

To request a full version of this paper, e-mail us at iibv@us.ibm.com

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[1] IBM Institute for Business Value analysis of financial data provided by Thomson Reuters and Hoovers or contained in annual reports.

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