## Editorial: A new era of networking

Big pharma is at it again. Just two years since the Pfizer and GlaxoSmithKline mergers and once more consolidation is on the cards. Pfizer's acquisition of Pharmacia will create a company with 12 blockbuster products and global ethical sales of over US\$40bn.<sup>1</sup> Biotechnology companies in the pharmaceutical industry will view this latest matchmaking with more than a little concern, especially if it triggers further mergers. The choice of licensing partners will diminish while big pharma will command an increasingly strong negotiating position. Yet it is not the strength of these giants that biotechs should really fear, for it is apparent that they do not work in the long term. Rather, biotechs should prepare themselves now for a radical restructuring in how the industry does business.

Recent data clearly demonstrate a productivity (and hence profitability) crisis in the pharmaceutical industry, and size alone will not overcome it. R&D expenditure, for instance, has grown from US\$1.98bn in 1980 to US\$26.35bn in 2000, a compound annual growth rate of 13.8 per cent.<sup>2</sup> Over the same period, ethical sales grew at a compound annual growth rate (CAGR) of 10.8 per cent, shifting the ratio of R&D spend to sales from 11.9 to 20.3 per cent.<sup>2</sup> If pharmaceutical companies peg R&D investment to product sales, then productivity per R&D dollar is clearly declining.<sup>2</sup> Equally worrying, the number of new molecular entities (NMEs) approved by the Food and Drug Administration (FDA) only increased from 20 in 1980 to 27 in 2000.<sup>3</sup>

The apparently ongoing merger frenzy seeks to address this crisis, by creating efficiencies of scale. A larger workforce is not more efficient; revenues are directly proportional to sales, general and administration (S,G&A) expenditure; R&D investment is directly proportional to pipeline productivity.<sup>2</sup> In other words, size only generates higher revenues, not higher returns.

From this analysis it seems likely that the industry's structure will have to evolve. It has been suggested that pharmaceutical companies should adopt a network approach model.<sup>2</sup> At one end of the networked spectrum, companies outsource tactically, buying in capacity when required. At the opposite extreme is strategic outsourcing in which all of the sponsor's deliverables, not just overheads, are contracted out. This new breed of networked pharmaceutical company grows by downsizing. It keeps in-house only the intellectual capital that is critical to its competitive advantage and out-sources the rest in the form of temporary and long-term, domestic and international, strategic alliances with peers and vendors. To the company's customers, this alliance network is invisible. It works because specialist vendors and (bio)pharmaceutical companies are now arguably more efficient and progressive at what they do than are many pharmaceutical companies.

In the traditional pharmaceutical business model, an average of 80 per cent of the burden of fluctuating resource needs is borne in-house. In the networked model proposed here, only 40 per cent of resource needs are retained in-house. Outsourcing additional requirements thus transfers a significant proportion of otherwise fixed costs into variable costs. When industry dynamics change, or at times when performance exceeds expectations, a networked company can respond quickly and optimally, without being constrained by investments that have already been made in-house. Equally, when revenue growth is slow or erratic, or when diluting the risks of R&D, lowering variable costs protects gross operating profit margins (Figure 1).

But biotechs beware! You are still at the mercy of the big boys. When times are



**Figure 1:** Networked pharmas respond rapidly to fluctuating resource needs by outsourcing to cost-efficient specialist vendors (source: Datamonitor)

tough, the pharma company can quickly cut its outsourcing to biotech partners in its network. In short, biotechs will share some of pharma's risk. Biotechs must, therefore, adopt a similar model, finding safety in web of alliances, partnerships and contractual outsourcing.

And there is another added bonus. By preparing for the future and increasing their virtual mass through networks, biotechs may realise that the pharma giants do not have to be the ultimate destination for their products. Together, biotech networks should be able to market their own products. In the effort to counter and copy pharma's new tactics, biotechs should find the strength to step out on their own.

Wayne Lloyd Managing Director, Datamonitor and Editorial Board Member

## References

- 1. Pfizer press release, 15 July, 2002.
- 2. Datamonitor, Networked Pharma (March 2002).
- 3. FDA: http://www.fda.gov/cder/rdmt/nmecy2000.htm