

BIOBUSINESS BRIEFS

DEAL WATCH

Panning for gold: sourcing pharmaceutical innovation

Given the trend towards externally sourced innovation in the pharmaceutical industry over the past decade, the capabilities of large pharmaceutical companies with regard to mergers and acquisitions (M&As) and licensing could be an important source of differentiation between them. To help understand the relative performance of large companies in this respect, we analysed the capital invested by the top 20 companies in M&A (excluding mega-mergers) and licensing deals over the past 10 years, and the expected commercial impact of the products that were acquired, based on projected revenues in 2023 (see [Supplementary information S1 \(box\)](#) for details of the data and analysis methods).

We ranked M&A performance by using capital efficiency (defined as the commercial impact of the products acquired relative to capital deployed in M&As) and found substantial variability among the top 20 companies (FIG. 1a). Standout transactions in our sample included: Roche–GlycArt, which brought in the blood cancer drug obinutuzumab; Bristol-Myers Squibb–Medarex, which brought in the

immuno-oncology drug nivolumab; and Gilead–Pharmasset, which brought in the hepatitis C virus drug sofosbuvir.

Given the highly variable economic terms for licensing transactions, we measured licensing performance by looking at companies' hit rates in sourcing blockbusters (\geq US\$1 billion in peak revenues) and meaningful products (\geq \$0.2 billion in peak revenues). As shown in FIG. 1b, the success rate of licensing deals was also highly variable among the top 20 companies. Johnson & Johnson's licenses with Bayer for the anticoagulant rivaroxaban and with Pharmacylics for the anticancer drug ibrutinib are two examples of deals that brought in blockbusters in our sample. Another example is Sanofi's collaboration with Regeneron for the hypercholesterolaemia drug alirocumab.

Overall, it seems few companies excel at sourcing innovation externally, with only Roche and Johnson & Johnson rating highly at both M&As and licensing over the past 10 years. This variability in performance across deal types suggests that different capabilities and skill sets are necessary in

executing M&A transactions versus licensing deals. It is striking that few companies were able to license one or more blockbuster products over the past 10 years, despite a high number of deals. Thus, the difference between an average performer and a great performer could be one or two great deals, which is not too dissimilar from the venture capital model, in which 'home runs' make up for misses. Most blockbuster deals (7 out of 10) were late-stage licenses (Phase III or later), which suggests that many of the higher-quality molecules were more expensive to source (Supplementary information S1 (box)).

Our analysis suggests that most companies have a considerable opportunity to get better at deploying capital and resources efficiently when sourcing innovation externally. In our experience, we have found that the best performers develop robust forecasts for the key assets, are fiscally disciplined, and set up their innovation-sourcing teams and transaction capabilities to ensure that the right internal expertise is brought to bear and to ensure smooth hand-offs through the life cycle of a deal.

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SUPPLEMENTARY INFORMATION

See online article: [S1 \(box\)](#)

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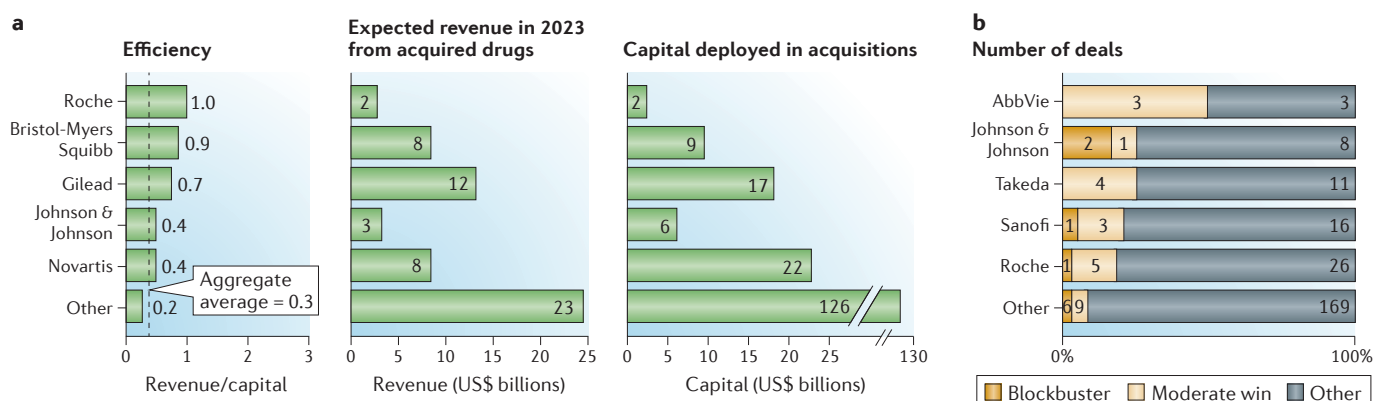


Figure 1 | Performance of the top 20 pharmaceutical companies in sourcing innovation externally. The study period was from 2004 to the first half of 2014. **a** | Efficiency in deploying capital for mergers and acquisitions (left panel), defined as the expected revenue in 2023 from acquired drugs (middle panel) divided by the capital deployed in acquisitions (right panel). Mega-mergers (value >US\$16 billion), co-development deals and licensing deals were excluded. Other companies included AstraZeneca, GlaxoSmithKline, Eli Lilly, Daiichi Sankyo, Abbvie/Abbott, Bayer, Sanofi, Amgen, Pfizer, Otsuka, Merck & Co., Astellas, Takeda and Boehringer Ingelheim. Novo Nordisk was

excluded due to lack of relevant deals in the observed time-frame.

b | Hit rate of licensing deals. Deals were classified according to the revenue that was forecasted for the relevant products in 2023: blockbuster (\geq \$1 billion); moderate win (\geq \$0.2 billion and <\$1 billion); other (<\$0.2 billion). Other companies included GlaxoSmithKline, Bayer, AstraZeneca, Astellas, Merck & Co., Pfizer, Eli Lilly, Boehringer Ingelheim, Novartis and Bristol-Myers Squibb; companies with <5 deals were excluded. Sources: IMS Health PharmaDeals; Evaluate 2014; Capital IQ; press search; company reports; and McKinsey analysis.