NEWS & ANALYSIS

BIOBUSINESS BRIEFS

Deal watch Deal-making trends in oncology

Between July 2008 and June 2009, the overall number of licensing deals across all therapeutic areas fell 17% to 661 from 791 over the previous 12 months, largely owing to the economic crisis. Although the number of oncology therapeutic licensing deals has fallen in line with this trend — dropping 18% from 163 to 132 — oncology retained its position as the top therapeutic area for deal making. This reflects the anticipation that oncology will be a leading revenue growth area over the next few years; EvaluatePharma estimate a compound annual growth rate of 6% for sales of oncology therapeutics between 2008 and 2014, compared with 2% for the industry overall.

Reflecting the shortage of late-stage development candidates and the intense competition for biotechnology platforms, the last 12 months have seen a significant shift towards earlier-stage deals in oncology (see <u>Supplementary information S1</u> (figure)). In comparison with the previous year, there has been an increase of over 100% in the number of deals for discovery or preclinical programmes (51 compared with 24), and a marked drop in deal numbers for late-stage products for the same time period. This has also been driven by the economic environment, which has doubled the number of biotech companies that have less than a year's cash; consequently, many are now facing the necessity of having to partner earlier than the traditional deal-making 'sweet spot' of Phase II proof-of-concept.

The increasing commercial interest and clinical success for high market-value biologics and targeted therapies are also reflected in recent deals. When all oncology deal types are considered, the number involving small molecules (96 in total) was notably fewer than those involving biotechnology-based products (103 in total; most of which involved monoclonal antibodies (mAbs)).

The majority of mAb-based deals are for relatively early-stage products, but have still commanded high-value deal terms (TABLE 1), driven by the phenomenal success of rituximab (Rituxan/MabThera; Roche/Biogen-Idec), bevacizumab (Avastin; Roche) and trastuzumab (Herceptin; Roche). According to data from EvaluatePharma, these mAbs had 2008 sales of US\$5.5 billion, \$4.8 billion and \$4.7 billion, respectively; they are the three top-selling oncology drugs and are within the top ten of all prescription pharmaceuticals.

Given the pressures from the impending loss of patent protection for many blockbuster small-molecule drugs, the higher hurdles for follow-on biologics are providing an additional incentive to invest in mAbs. Nevertheless, targeted small molecules - most notably, kinase inhibitors - have also been the subject of several large deals in the past year (TABLE 1). Looking forward, the spate of recent acquisitions related to oncology (TABLE 1) seems likely to continue, with companies such as Pfizer, Bristol-Myers Squibb, Eli Lilly, GlaxoSmithKline and Takeda all having stated their intention to look to the cancer market for new products to stock their pipelines.

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Table 1 Selected oncology deals from July 2008 to June 2009						
Date	Licensor or target	Licensee or acquirer	Phase of development	Total deal value (US\$ million) [§]	Upfront payment (US\$ million)	Milestone payments (US\$ million)
Licensing deal						
19 August 2008	PDL BioPharma*	Bristol–Myers Squibb	Phase I; preclinical	1,155	30	ND
29 October 2008	Lpath*	Merck Serono	Phase I	473	23	422
12 December 2008	Exelixis [‡]	Bristol-Myers Squibb	Phase III; Phase I	1,150	195	ND
06 January 2009	S*BIO [‡]	Onyx Pharmaceuticals	Phase I/II; preclinical	550	25	525
28 May 2009	Exelixis [‡]	Sanofi-aventis	Phase I/II	1,161	140	1,000
Acquisition						
15 April 2009	BiPar Sciences	Sanofi-aventis	Phase II	500	NA	ND
20 May 2009	EBEWE Pharma	Novartis AG	Launched	1,257	NA	NA
21 May 2009	Cougar Biotechnology	Johnson & Johnson	Phase III; Phase I/II	1,000	NA	NA

*Antibody deal. [‡]Targeted small-molecule deal. [§]Potential total deal value excluding royalties. NA, not applicable; ND, not disclosed. Source: PharmaDeals.