

Section: Opinion & Analysis

Deal Making Trends in Oncology

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In the continued challenge to produce new therapies in the fight against cancer, the ebb and flow of products between companies through deals is central to driving innovation and creating value.

In the period of June 2008-2009 the overall number of licensing deals across all therapeutic areas fell 22% to around 667 from 814 the previous year. This can largely be attributed to the economic shock affecting all industries, and while the number of oncology therapeutic licensing deals has fallen in line with this trend (a drop of 15% from 169 to 143), oncology retained its position as the top therapeutic area for deal making. The continued appetite in this sector reflects the prediction that oncology is set to be a leading revenue growth area over the coming years, with an estimated CAGR of 6% between 2008-2014, compared to 2% for the pharmaceutical industry as a whole.

Highlighting the shortage of late stage development candidates and the intense competition for biological technology platforms, the last 12 months have seen a significant shift towards earlier stage deals. In fact, compared to the previous year, there has been an increase of over 50% in the number of deals for discovery or preclinical programmes, compared to a marked drop in deal numbers for late-stage products for the same time period (*Figure 1*). The underlying driver for these changes resides firmly in the credit crunch and equity drought, which has doubled the number of biotech companies with 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 emerging clinical success for high market value biologics and targeted therapies is also reflected in recent deals. When all oncology deal types are considered, the number involving small molecules was notably fewer than those involving biotechnology based products (93 compared to 110), of which deals involving monoclonal antibodies constitute the largest proportion. The majority of antibody based deals are for relatively early stage products but have still commanded high-value deal terms (*Table 1*). This appetite for antibodies has been driven by the phenomenal growth and megablockbuster status achieved by MabThera/Rituxan, Avastin and Herceptin. With 2008 sales of US\$5.5 B, US\$4.8 B and US\$4.7B

respectively, these antibodies now represent the three top-selling oncology therapeutics world-wide and are within the top 10 of all prescription pharmaceuticals. Given the current pressures on large Pharma from the impending genericisation of these companies' small molecules, the higher hurdles for biogenerics are still providing an additional incentive for existing players to want to expand within this space and to draw relative newcomers to enter this market.

However, that is not to say that small molecules are being forgotten: targeted therapeutics, most notably kinase inhibitors, have also seen a number of large deals in the past year, no doubt encouraged by 2008 sales of US\$3.7 B and US\$1.6 B for Gleevec and Tarceva respectively, with Sutent and Nexavar also forecast to achieve blockbuster heights in 2010. Exelixis has fared especially well in the tyrosine kinase space with two deals in the last six months: Exelixis has the potential to receive more than US\$1 B from each deal (*Table 1*).

Looking forward, oncology has driven a spate of recent acquisitions by top tier companies. More are keen to enter the fray with Pfizer, Bristol-Myers Squib, Eli Lilly & Co and GlaxoSmithKline having all stated the intention to look to the cancer market for new products to stock their pipelines. Others are going one step further: Millennium

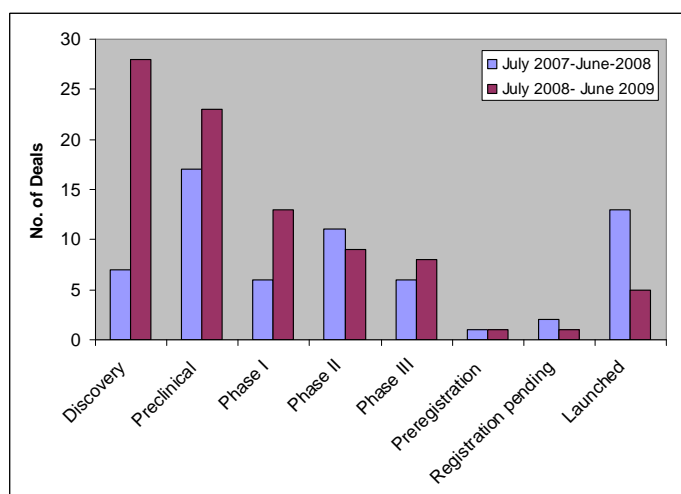


Figure 1 - Oncology therapeutic licensing deals by phase of development. Only those deals in which the developmental stage of the products being licensed was known were included in this analysis.

Pharmaceuticals (now a subsidiary of Takeda) announced at BIO 2009 that it plans to make a string of new deals for oncology products and isn't ruling out an acquisition in the US\$10 B range. Given this level of stated interest and the high values placed on promising new therapies, oncology deal making looks set to remain a hot topic for the foreseeable future.

	Date	Licensor/Target	Licensee/Acquirer	Phase of Development	Total Deal Value (US\$ M)*	Upfront Payment (US\$ M)	Milestones (US\$ M)
Antibodies	19/08/2008	PDL BioPharma	Bristol-Myers Squibb	Preclinical; Phase I	1155	30	n/d
	29/10/2008	Lpath	Merck Serono	Phase I	473	23	422
	12/01/2009	Micromet	Bayer Schering Pharma	Preclinical	397	n/d	n/d
	18/05/2009	Oxford BioTherapeutics	GlaxoSmithKline	Discovery	n/d	n/d	370
Targeted Therapy	03/10/2008	Deciphera Pharmaceuticals	Eli Lilly & Co	Preclinical	n/d	n/d	130
	12/12/2008	Exelixis	Bristol-Myers Squibb	Phase III; Phase I	1150	195	n/d
	06/01/2009	S*Bio	Onyx Pharmaceuticals	Preclinical; Phase I/II	550	25	525
	07/05/2009	Exelixis	Boehringer Ingelheim	Discovery	354	15	339
	28/05/2009	Exelixis	sanofi-aventis	-	1161	140	1000
Acquisition	15/04/2009	BiPar Sciences	sanofi-aventis	-	500	-	-
	18/05/2009	IDM Pharma	Takeda America Holdings	-	n/d	-	-
	20/05/2009	EBEWE Pharma	Novartis AG	-	1257	-	-
	21/05/2009	Cougar Biotechnology	Johnson & Johnson	-	1000	-	-
	29/05/2009	CuraGen	CellDex Therapeutics	-	95	-	-

Table 1 - Selected oncology deals July 2008 to June 2009. *Potential total deal value excluding royalties. n/d: not disclosed

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All deal data in this paper are sourced from PharmaDeals®. All sales-related data has been sourced from EvaluatePharma®.

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