The R&D partnership universe

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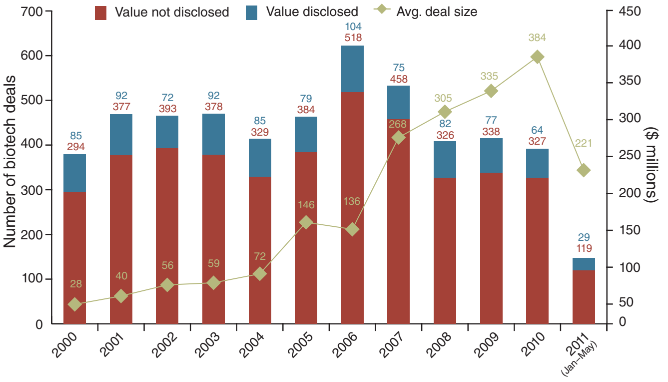
Apart from a 2006 spike, the annual number of deals has remained relatively flat, with an average of ~440 deals per year; however, deal size has swollen tenfold. Licenses for small-molecule discovery/screening platforms, monoclonal antibody, oncology and infectious disease assets predominate, with drug delivery partnerships increasing, perhaps due to the rise of biobetters. Deals on hepatitis C virus NS5B polymerase inhibitors, a small molecule against all vascular endothelial growth factor receptor (VEGFR) subtypes and a biosimilar figure prominently this year.

Historic total number and average value of biotech deals

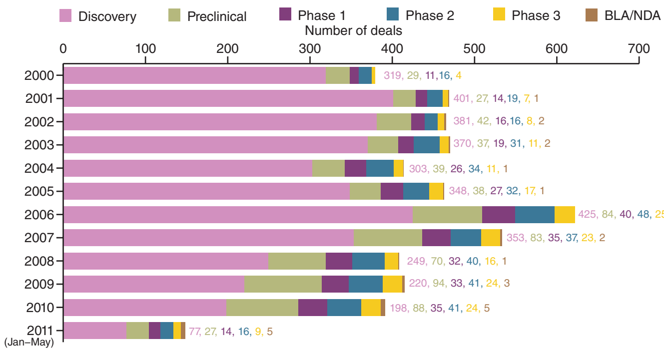
Average value of deals increased by tenfold over the past decade, whereas the number of deals remained flat.



Total number of deals for year including those without disclosed financials. Average deal value for subset of deals that include financial information. Source: Deloitte Recap.

Historic number of biotech deals by development stage

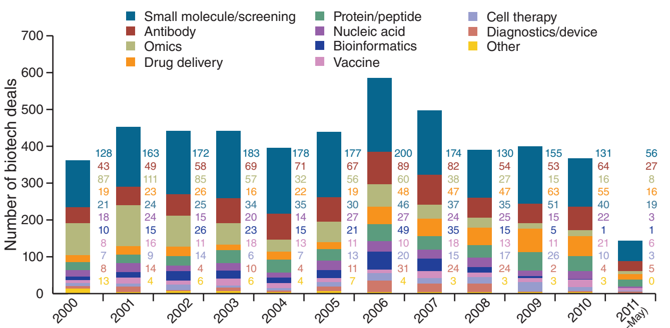
Discovery assets predominate; a twofold jump in preclinical compound collaborations in 2006 has continued; registered products are also up.



BLA, biologic license application; NDA, new drug application. Source: Deloitte Recap.

Historic number of deals by primary technology/modality

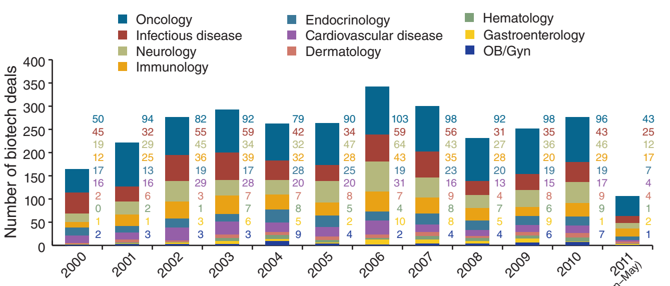
Small-molecule discovery/screening platforms and monoclonal antibody deals dominate, with drug delivery partnerships becoming more common.



Source: Deloitte Recap.

Historic number of biotech deals in top ten disease categories

Cancer therapy and infectious disease treatments dominate deals.



Source: Deloitte Recap.

Top biotech deals by value in Q1 to Q3 2011

Date	Licensor/licensee	Deal	Value ($ millions)
06/2011	Alios BioPharma/Vertex Pharmaceuticals	Worldwide rights to ALS-2200 and ALS-2158 to treat HCV	1,525
02/2011	AVEO Pharmaceuticals/ Astellas Pharma	Tivozanib VEGF pathway inhibitor for cancer worldwide excluding Asia	1,480
07/2011	Micromet/Amgen	Discovery and development of BiTE antibodies for up to two undisclosed solid tumor targets	1,011
09/2011	Evotec/Roche	Worldwide rights to mono-amine oxidase B inhibitor for Alzheimer's disease	830
06/2011	Hanwha Chemical/Merck	Development of HD203, Enbrel (etanercept) bio-similar worldwide excluding Korea and Turkey	720
08/2011	Array BioPharma/Genentech	ARRY-575 preclinical ChK-1 program for cancer	713
09/2011	f-star/Merck Serono	Modular antibody technology to discover antibodies against three targets for inflammatory disease	690
01/2011	Theraclone Sciences/Pfizer	I-STAR technology to screen memory B-cell antibodies for monoclonal antibodies against four undisclosed infectious disease and cancer targets	632
01/2011	Santaris Pharma/Pfizer	Locked nucleic acid drug platform for RNA-targeted drugs	614
05/2011	Glenmark Pharmaceuticals/ Sanofi-Aventis	GBR500 monoclonal antibody for the treatment of Crohn's disease.	613

Source: Deloitte Recap. HCV, hepatitis C virus; VEGF, vascular endothelial growth factor; MAO-B, monoamine oxidase B; BiTE, Bi-specific T-cell engager.

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