



BUREAU VAN DIJK

M&A Review

Biotech

January 2017



The following report details mergers and acquisitions activity in the biotech sector in January 2017 using data from the Zephyr database.

It focuses on global deals activity by target company within the cleantech sector.

Click [here](#) to access the raw data in an Excel spreadsheet.

PE and VC value remains static month-on-month

The value of private equity, venture capital and development capital (PE, VC and DC) investment in biotech companies was almost unchanged in January, against a 6 per cent decrease by volume. In total there were 45 deals worth a combined USD 630 million, compared to 48 deals worth USD 629 million in December.

In terms of value, January represents the third largest month for PE, VC and DC investment in biotech companies of the last 12 months under review (August 2016: USD 2,711 million; July 2016: USD 759 million).

Year-on-year value advanced 7 per cent, against a 15 per cent decline by volume from 53 deals worth an aggregate USD 589 million in January 2016.

Private equity, venture capital and development capital deals by volume and value

Announced date	No of deals	Total deal value (mil USD)
Jan-17	45	630
Dec-16	48	629
Nov-16	42	549
Oct-16	36	155
Sep-16	53	451
Aug-16	41	2,711
Jul-16	45	759
Jun-16	39	346
May-16	57	454
Apr-16	43	479
Mar-16	50	445
Feb-16	37	295
Jan-16	53	589



BUREAU VAN DIJK

Welcome to the business of certainty.

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zephyr

The most comprehensive deal database



orbis

The world's most powerful comparable data resource on private companies

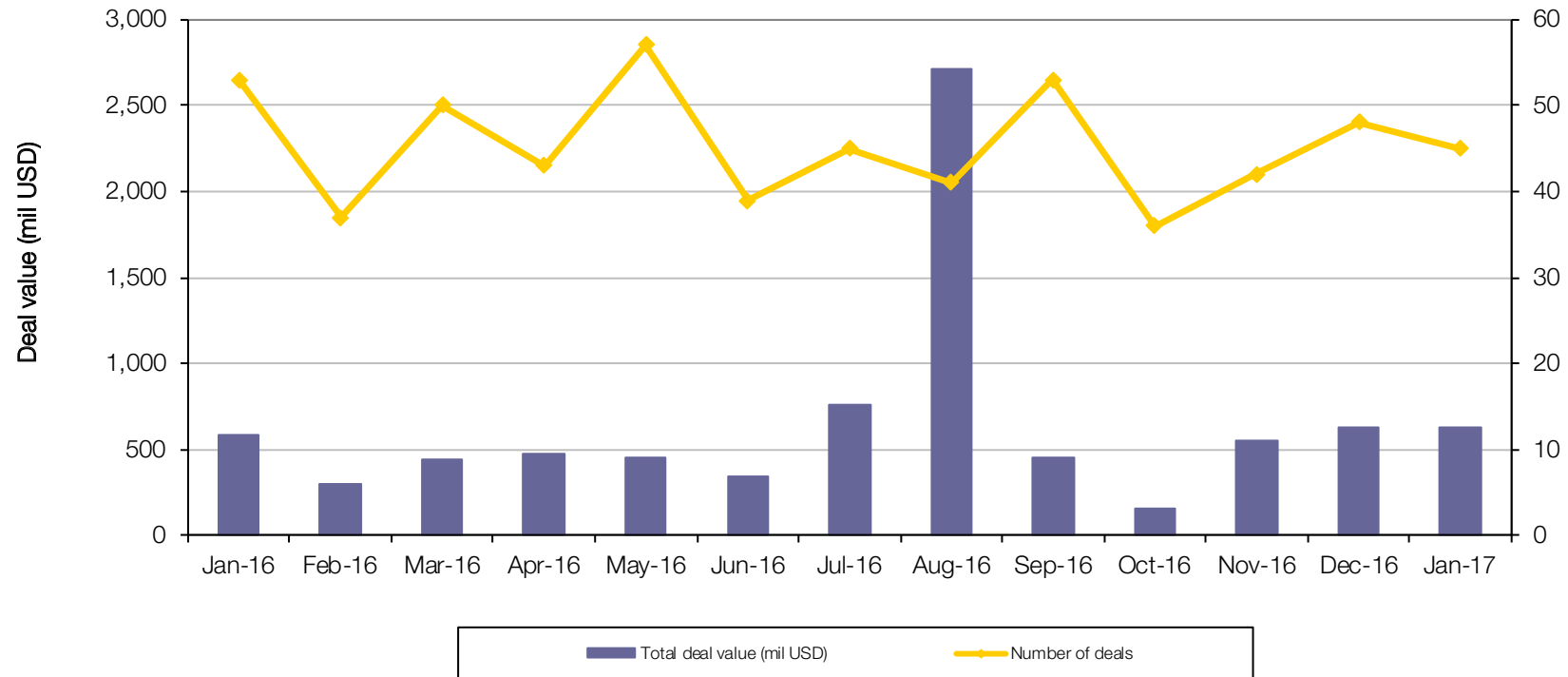
m&a research catalyst



Combining deal and company data



Private equity, venture capital and development capital deals by volume and value





Funding rounds and minority stake investments dominate top 20 deals

Once again the majority of the top PE, VC and DC investments in biotech companies in January took the form of funding rounds and minority stake investments, the largest being Ascletris Biotechnology, a Chinese liver disease biopharmaceuticals group, raising USD 100 million in a series B round of funding from investors including C-Bridge Capital Partners, Goldman Sachs, and Qianhai Fanghou Asset Management.

This was the only deal to reach USD 100 million in the month under review and represented 16 per cent of total PE, VC and DC value in January (USD 630 million).

While 14 of the top 20 transactions targeted US-based businesses, a number of other countries were also involved in sizable deals in January, including the second largest deal by value which involved Netherlands-based Merus raising USD 80 million in a round of funding.

Mabworks Biotech of China, Belgium-headquartered Octimet Oncology, UK-based Macrophage Pharma and DarioHealth of Israel were also targeted.

A number of large private equity firms took part in biotech deals this month, including Novartis, AME Cloud Ventures and Alexandria Equities; however, Quark Ventures was the only company to be involved in two of the top 25 deals by value.

Biotech companies in the US lead PE, VC and DC investment once again

Despite being targeted in the industry's largest deal by value in January companies based in China were edged out by businesses in the US in terms of both volume and value as only 3 deals worth USD 141 million were signed off. Biotech companies based in the US received the lion's share of investment in the month under review with 35 deals worth a combined USD 381 million.

The value of deals in the country declined 7 per cent month-on-month, against a 21 per cent decrease year-on-year, although it was the only country to decline over the four-week period as investment in China, the Netherlands, Belgium, the UK and Israel were all up.

China was joint second in terms of volume with the UK, which was also targeted in three deals during January, while companies in Israel, Belgium, Canada and the Netherlands were targeted in one deal each during the month.



Private equity, venture capital and development capital deals by value

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	General Partner/Fund Manager	Deal status
1.	100	Minority stake	Asclepis Biotechnology (Hangzhou) Co., Ltd	Liver disease biopharmaceuticals manufacturer, Liver disease biopharmaceuticals research and development services	CN	Goldman Sachs Group Inc.; Fubon Financial Holding Venture Capital Corporation; Qianhai Fangzhou Asset Management Co., Ltd; Tianjin Tasly Biotechnology Venture Investment Management Co., Ltd; C-Bridge Capital Partners (China) Co., Ltd	Completed
2.	80	Minority stake	Merus N V	Biotechnology	NL		Completed
3.	56	Minority stake	Maverick Therapeutics Inc.	Biotechnology	US		Completed
4.	54	Minority stake	Apollo Endosurgery US Inc.	Biotechnology	US		Completed
5.	41	Minority stake	Synthego Corporation	Genome engineering solutions provider	US	Menlo Ventures; WI Harper Group Inc.; Founders Fund Management LLC; Zhen Fund; AME Cloud Ventures LLC; Elements Capital Partners Ltd; OS Fund LLC; Eight Partners VC LLC; Alexandria Equities LLC	Completed
6.	39	Minority stake	Mabworks Biotech Co., Ltd	Genetic engineering antibody drug research and development services	CN	Shenzhen GTJA Investment Group Co., Ltd; Shanghai Mefund Asset Management Co., Ltd;	Completed
7.	31	Minority stake	Evelo Biosciences Inc.	Biotechnology	US		Completed
8.	30	Minority stake	Aileron Therapeutics Inc.	Biopharmaceuticals developer	US		Completed
9.	26	Minority stake	Cavion Inc.	Biopharmaceuticals for neurological and oncologic diseases research and development services	US	Novartis AG; Lilly Ventures Management Company LLC; Enso Ventures Ltd	Completed
10.	26	Minority stake	Ovid Therapeutics Inc.	Biopharmaceuticals developer, Biopharmaceuticals manufacturer	US		Completed



Private equity, venture capital and development capital deals by value (Cont'd)

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	General Partner/Fund Manager	Deal status
11.	25	Minority stake	Microbion Corporation	Clinical stage biopharmaceutical bacterial infections research and development services, Therapeutics for the treatment of bacterial infections manufacturer	US	Quark Venture Inc.; Guangfa Xinde Investment Management Co., Ltd	Completed
12.	20	Minority stake	Rhythm Pharmaceuticals Inc.	Bio-gastrointestinal peptide therapeutic products manufacturer, Bio-gastrointestinal peptide therapeutic research services	US		Completed
13.	18	Minority stake	CardioDx Inc.	In-vitro blood diagnostic test developer, In-vitro blood diagnostic test research services	US		Completed
14.	18	Minority stake	Avidity Biosciences LLC	Biotechnology	US		Completed
15.	12	Minority stake	Octimet Oncology SA/NV	Cancer therapies clinical development strategies services	BE	Omnes Capital SA; DROIA SA/ NV; Fund+ NV; V-Bio Ventures	Completed
16.	11	Minority stake	Macrophage Pharma Ltd	Anti-tumour immune oncology responses treatments developer	GB	Novo A/S; Aglaia BioMedical Ventures II BV; Sixth Element Capital LLP	Completed
17.	5	Minority stake	Q Labs Holdings Inc.	Biotechnology	US		Completed
18.	5	Minority stake	DarioHealth Corp	Biotechnology	IL		Completed
19.	5	Minority stake	Bonti Inc.	Biotechnology	US		Completed
20.	4	Minority stake	Kuli Kuli Inc.	Moringa based nutritional products manufacturer	US	Investeco Capital Corporation; Eighteen94 Capital LLC	Completed



Target countries by volume - private equity, venture capital and development capital deals

Target country	Jan-16	Dec-16	Jan-17
US	38	31	35
China	5	4	3
UK	1	2	3
Israel	0	0	1
Belgium	0	0	1
Canada	4	2	1
Netherlands	0	0	1

Target countries by value - private equity, venture capital and development capital deals

Target country	Jan-16 (mil USD)	Dec-16 (mil USD)	Jan-17 (mil USD)
US	485	410	381
China	38	116	141
Netherlands	0	0	80
Belgium	0	0	12
UK	45	4	11
Israel	0	0	5



Private equity, venture capital and development capital investors

	Company name	Number of deals	Number with consideration	Total deal value (mil USD)	Average deal value (mil USD)
1	Tianjin Tasly Biotechnology Venture Investment Management Co., Ltd	1	1	100	100
2	C-Bridge Capital Partners (China) Co., Ltd	1	1	100	100
3	Qianhai Fangzhou Asset Management Co., Ltd	1	1	100	100
4	Goldman Sachs Group Inc.	1	1	100	100
5	Fubon Financial Holding Venture Capital Corporation	1	1	100	100
6	Eight Partners VC LLC	1	1	41	41
7	AME Cloud Ventures LLC	1	1	41	41
8	Elements Capital Partners Ltd	1	1	41	41
9	Zhen Fund	1	1	41	41
10	WI Harper Group Inc.	1	1	41	41
11	Menlo Ventures	1	1	41	41
12	Founders Fund Management LLC	1	1	41	41
13	Alexandria Equities LLC	1	1	41	41
14	OS Fund LLC	1	1	41	41
15	Shanghai Mefund Asset Management Co., Ltd	1	1	39	39
16	Shenzhen GTJA Investment Group Co., Ltd	1	1	39	39
17	Harvest Investments Management Co., Ltd	1	1	39	39
18	Quark Venture Inc.	2	2	28	14
19	Enso Ventures Ltd	1	1	26	26
20	Novartis AG	1	1	26	26
21	Lilly Ventures Management Company LLC	1	1	26	26



M&A value second largest on record

The value of mergers and acquisitions (M&A) advanced significantly for the third consecutive month in January to the second largest monthly value on record (April 2004: USD 67,684 million) thanks to one blockbuster deal signed off during the four weeks under review.

There were 111 deals worth a combined USD 39,625 million in January, compared to 120 deals worth USD 7,341 million in December. Year-on-year value increased 12 per cent, against an almost unchanged result in terms of volume from 110 deals worth USD 35,360 million in January 2016, the third largest result on record.

While three deals were worth more than USD 1,000 million in the month under review, one transaction significantly boosted overall value and involved Johnson & Johnson making a USD 30,173 million offer to acquire Switzerland-based drug maker Actelion. This deal represented 76 per cent of total M&A value for the month and was the largest deal in the industry to be signed off since Shire agreed to acquire Baxalta for USD 32,000 million in January last year.

The second and third largest biotech deals announced in January together represented a further 16 per cent of total value and both involved US-based businesses.

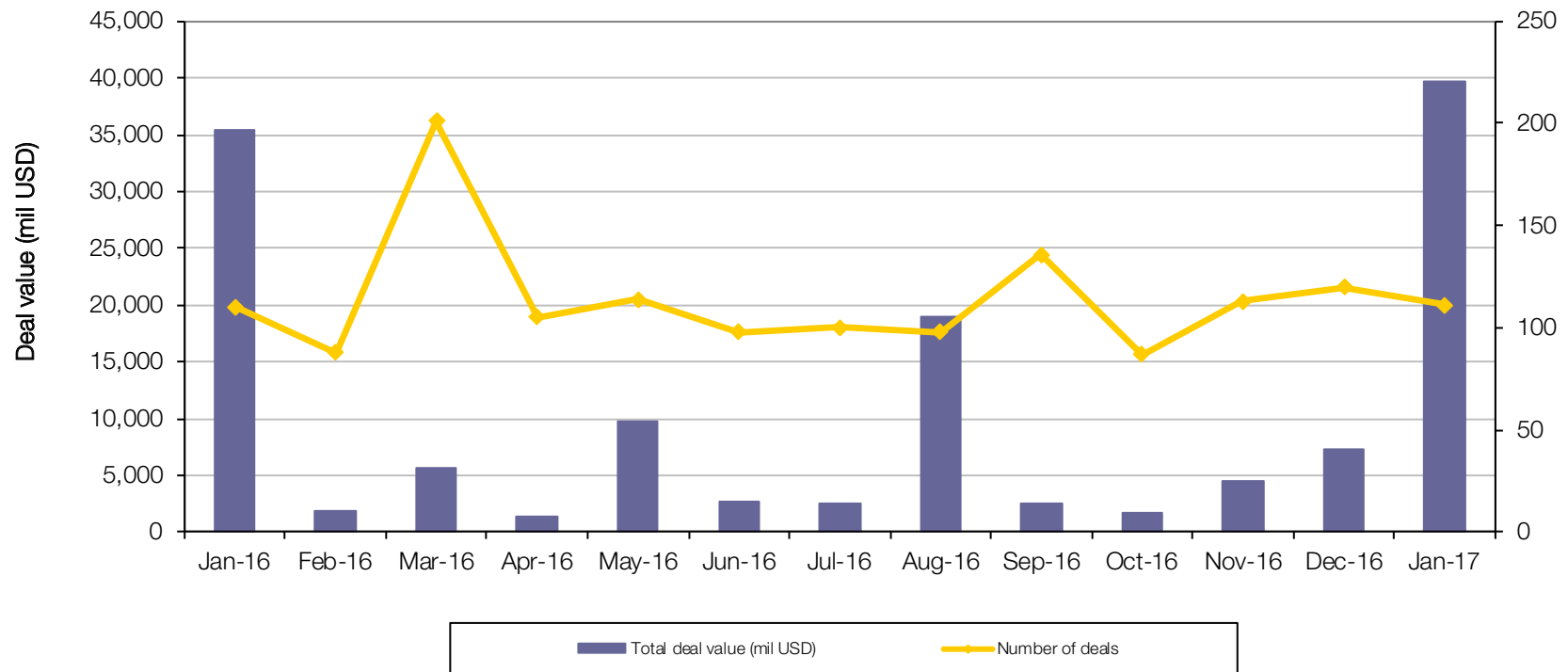
After being targeted the in the largest transaction in January it comes as no surprise that companies based in Switzerland led the way in terms of value, despite almost the entire amount being attributable to a single deal. Companies in the US were second with USD 8,366 million in January and were followed by businesses in China, Brazil and the Netherlands.

Deals by volume and value

Announced date	No of deals	Total deal value (mil USD)
Jan-17	111	39,625
Dec-16	120	7,341
Nov-16	113	4,426
Oct-16	87	1,695
Sep-16	136	2,540
Aug-16	98	19,027
Jul-16	100	2,470
Jun-16	98	2,729
May-16	114	9,748
Apr-16	105	1,305
Mar-16	201	5,647
Feb-16	88	1,874
Jan-16	110	35,360



Deals by volume and value





Top 20 deals by value

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	Acquiror	Announced date
1.	30,173	Acquisition 100%	Actelion Ltd	Biopharmaceutical manufacturer, Biotechnology research developer	CH	Johnson & Johnson	26/01/2017
2.	5,200	Acquisition 100%	Ariad Pharmaceuticals Inc.	Small-molecule cancer biopharmaceuticals manufacturer	US	Kiku Merger Company Inc.	09/01/2017
3.	1,025	Acquisition 100%	Merrimack Pharmaceuticals Inc.'s global oncology assets	Cancer and autoimmune disease biopharmaceuticals manufacturer, Cancer and autoimmune disease biopharmaceuticals research and development services	US	Ipsen SA	08/01/2017
4.	960	Acquisition 100%	CoLucid Pharmaceuticals Inc.	Neurological dysfunction biopharmaceuticals manufacturer, Neurological dysfunction biopharmaceuticals research and development services	US	Eli Lilly and Company	18/01/2017
5.	311	Acquisition 100%	Altimune Inc.	Bio-vaccine and other associated biological products research and development services	US	PharmAthene Inc.	19/01/2017
6.	186	Acquisition 100%	Salomao e Zoppi Servicos Medicos e Participacoes SA	Medical diagnostic services provider	BR	Diagnosticos da America SA	19/01/2017
7.	159	Acquisition 100%	GenVec Inc.	Gene-based therapeutic drugs and vaccines manufacturer	US	Intrexon Corporation	24/01/2017
8.	157	Capital Increase 13%	Guangdong VTR Bio-Tech Co., Ltd	Feed enzyme developer, Feed enzyme manufacturer	CN	Investors; Zhuhai Jindadi Investment Co., Ltd	16/01/2017
9.	153	Capital Increase 16%	Wuhan Thalys Medical Technology Inc.	Diagnostic instruments research and development services, Medical instruments wholesaler	CN	Investors; Employee Stock Ownership Plan; Mr Wen Wei	24/01/2017
10.	143	Minority stake increased from 2% to 3%	Actelion Ltd	Biopharmaceutical manufacturer, Biotechnology research developer	CH	Norges Bank	31/01/2017



Top 20 deals by value (Cont'd)

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	Acquiror	Announced date
11.	100	Minority stake	Asclepis Biotechnology (Hangzhou) Co., Ltd	Liver disease biopharmaceuticals manufacturer, Liver disease biopharmaceuticals research and development services	CN	Goldman Sachs Group Inc.; Investors; Fubon Financial Holding Venture Capital Corporation; Qianhai Equity Investment Fund (LP); Tianjin Tasly Biotechnology Venture Investment Management Co., Ltd; C-Bridge Capital Partners (China) Co., Ltd; Focus Media Jiang Nanchun Foundation	03/01/2017
12.	80	Minority stake	Merus N V	Biotechnology	NL		23/01/2017
13.	77	Capital Increase	Cascadian Therapeutics Inc.	Anti-cancer biopharmaceuticals developer	US		24/01/2017
14.	75	Capital Increase 11%	Progenics Pharmaceuticals Inc.	Oncology biopharmaceutical research and development services	US		06/01/2017
15.	56	Minority stake	Maverick Therapeutics Inc.	Biotechnology	US		19/01/2017
16.	54	Minority stake	Apollo Endosurgery US Inc.	Biotechnology	US		09/01/2017
17.	51	Minority stake 49%	Access Biologicals LLC	In-vitro, biopharmaceutical and cell culture biological products manufacturer	US	Grifols SA	12/01/2017
18.	46	Capital Increase 19%	Rigel Pharmaceuticals Inc.	Clinical-stage pharmaceutical products manufacturer, Immunology, oncology and immuno-oncology biopharmaceuticals developer	US		31/01/2017
19.	45	Capital Increase 19%	Stemline Therapeutics Inc.	Biopharmaceutical research and development services, Biopharmaceuticals manufacturer	US		20/01/2017
20.	41	Minority stake	Synthego Corporation	Genome engineering solutions provider	US	Menlo Ventures; WI Harper Group Inc.; Founders Fund Management LLC; Mr Max Levchin; Zhen Fund; AME Cloud Ventures LLC; Elements Capital Partners Ltd; OS Fund LLC; Eight Partners VC LLC; Alexandria Equities LLC; Ms Jennifer Doudna; Mr Jamie H Doudna Cate	04/01/2017



Target countries by volume

Target country	Jan-16	Dec-16	Jan-17
US	60	46	52
China	13	17	17
UK	4	7	7
Japan	0	5	6
France	0	10	4
Canada	5	5	3
Switzerland	2	8	3
Netherlands	3	0	3
Israel	0	0	2
Brazil	1	0	2
Germany	1	1	2
Russia	0	0	2
Australia	5	2	2
Sweden	1	1	1
India	1	5	1
Finland	0	0	1
Spain	3	5	1
South Korea	5	1	1
Belgium	3	0	1

Target countries by value

Target country	Jan-16 (mil USD)	Dec-16 (mil USD)	Jan-17 (mil USD)
Switzerland	29	361	30,316
US	34,390	4,571	8,366
China	727	272	515
Brazil	0	0	186
Netherlands	76	0	100
France	0	113	40
UK	52	1,013	35
Japan	0	12	15
Belgium	4	0	12
Spain	23	7	9
Israel	0	0	9
Australia	3	36	8
Sweden	0	0	7
Germany	0	0	5
South Korea	32	3	2
Canada	1	44	1



IPOs by volume and value

Announced date	No of deals	Total deal value (mil USD)
Jan-17	1	32
Dec-16	4	172
Nov-16	1	75
Oct-16	2	1,962
Sep-16	3	337
Aug-16	1	52
Jul-16	1	57
Jun-16	4	172
May-16	1	157
Apr-16	3	211
Mar-16	0	0
Feb-16	5	18
Jan-16	7	393



January IPOS

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	Deal status	Announced date
1.	32	Planned IPO on Euronext Paris	Lysogene SAS	Severe genetic pathology biotherapeutic products developer	FR	Announced	25/01/2017

Notes to editors

The search criteria uses a key word system based on the targets' business description

The key words and phrases are: "biotechnology" OR "antimicrobial" OR "CNS" OR "neurotransmitter" OR "cardiovascular" OR "blood system agent" OR "cell control agent" OR "dermatological" OR "genetic" OR "hormone" OR "immunomodulator" OR "Ion Channel" OR "modulat" OR "metabolic" OR "musculoskeletal" OR "renal system" OR "reproductive" OR "respiratory" OR "diagnostic" OR "gastrointestinal" OR "degeneration" OR "endocrine" OR "growth disorder" OR "gynecology" OR "obstetrics" OR "haematological" OR "neurological" OR "neoplasm" OR "neurological" OR "nutritional" OR "psychiatric" OR "toxicity" OR "ulcer" OR "genitourinary" OR "oncology" OR "biological" OR "clinical" OR "biomedical" OR "bioinformatics" OR "cheminformatics" OR "biologicgenerics" OR "genetics" OR "genomics" OR "transgenic" OR "protein" OR "RNA" OR "DNA" OR "enzyme" OR "fermentation" OR "oncogenomics" OR "proteomics" OR "nanobiotechnology" OR "Gene" OR "Central nervous system" OR "Cloning" OR "genome" OR "genotyping" OR "molecular" OR "microbiology" OR "animal cell culture" OR "biochemistry" OR "embryology" OR "cell biology" OR "Tissue Engineering" OR "Stem Cell" OR "Pharmacogenomics" OR "Escherichia Coli" OR "E. Coli" OR "Embryos" OR "molecule" OR "transgenic" OR "biotechnology" OR "biotech" OR "bio tech" OR "biopharmaceuticals" OR "micropropagation" OR "biobased products" OR "biopharming" OR "biotechnology-derived" OR "bt corn" OR "chromosomes" OR "embryonic stem cells" OR "fibroblast" OR "molecular biology" OR "mutation" OR "nucleotide" OR "organic agriculture" OR "phenotype" OR "plant-incorporated protectants" OR "pollen" OR "tissue culture" OR "transfection" OR "virus" OR "vitamin" OR "xenotransplantation" OR "zygote"

Activity is based on the activity of the target company

Deal status is announced, completed, pending or unconditional