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Biotech M&A Review May 2019

The following report details mergers and acquisitions activity in the biotech sector in May 2019 using data from the Zephyr database.

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

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

Biotech PE, VC and DC value jumps in May

The volume and value of private equity, venture capital and development capital (PE, VC and DC) investment in the global biotech sector increased in May to 50 deals worth an aggregate USD 1,081 million. Volume rose 9 per cent from 46 deals in April, despite declining 30 per cent from 71 deals in May 2018. In terms of value, the four weeks under review represented an improvement both month-on-month (USD 758 million) and year-on-year (USD 1,024 million).

The increase can be attributed to four biotech PE, VC and DC deals each worth more than USD 100 million in May. With US targets dominating the top 20 deals by value.

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

Announced date	No of deals	Total deal value (mil USD)
May-19	50	1,081
Apr-19	46	758
Mar-19	43	491
Feb-19	46	633
Jan-19	53	1,294
Dec-18	56	1,087
Nov-18	50	918
Oct-18	51	492
Sep-18	45	724
Aug-18	63	1,482
Jul-18	44	494
Jun-18	56	949
May-18	71	1,024



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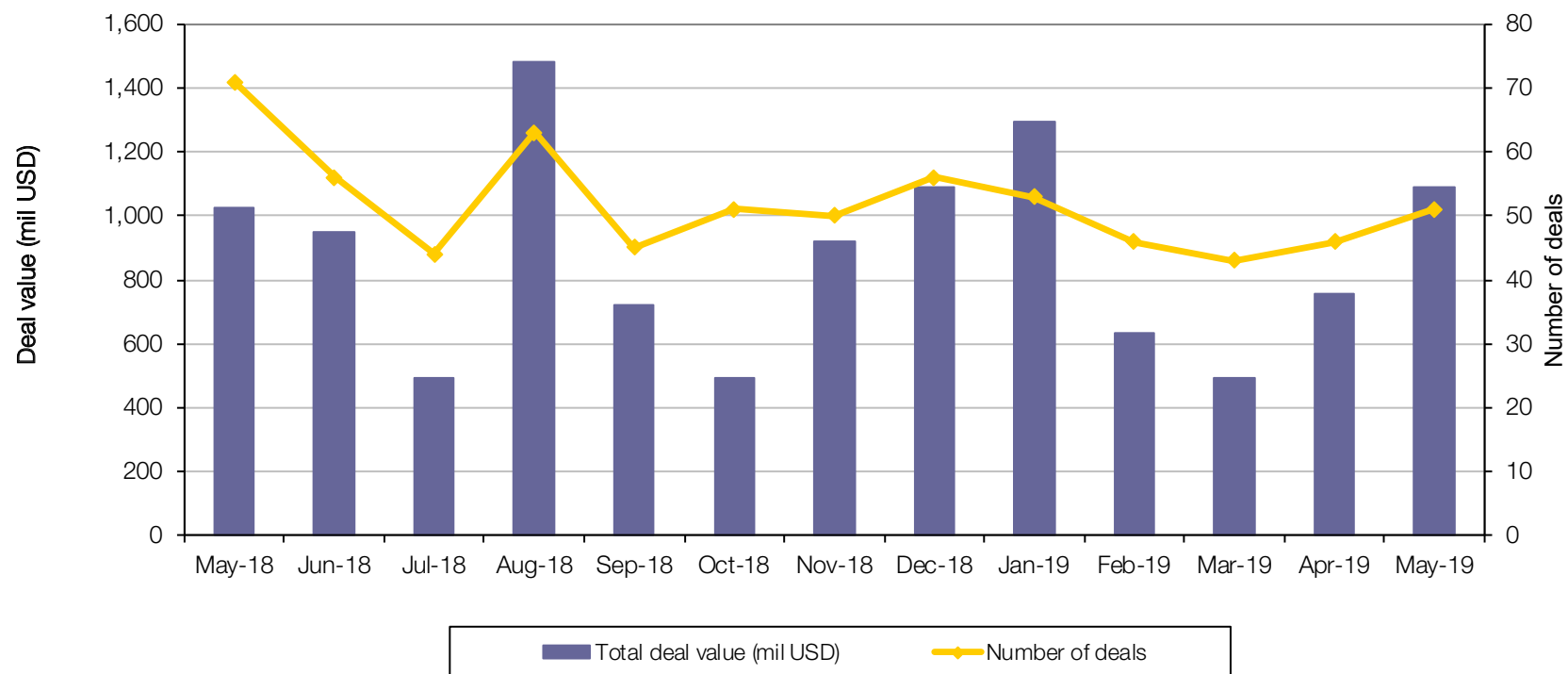


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Private equity, venture capital and development capital deals by volume and value



One Chinese company is targeted in the top five deals by value

In total, 17 of the top 20 PE, VC and DC biotech deals by value in May targeted US-based companies, including the month's largest investment, which involved Illinois-headquartered clinical and molecular technology developer Tempus Labs raising USD 200 million through a series F funding round that featured participation by Franklin Resources, Novo Holdings, Baillie Gifford and T Rowe Price Associates, among others.

The second-largest deal was one of three in the top 20 that did not target a US-based company. Allist Pharmaceuticals of China secured USD 171 million in its first round of funding, with investors including Suzhou Industrial Park Bioventure Investment Management, Shiyu Capital and SDIC Unity Capital. T

Only two other deals were worth USD 100 million or more in May, and both targeted companies in the US. The third-largest involved ElevateBio raising USD 150 million in a round of funding led by MPM Capital, while AlloVir raised worth USD 121 million via a series B financing round led by Fidelity Management & Research.

The only other deals in the top 20 featuring companies not based in China or the US involved: Ayala Pharmaceuticals of Israel receiving USD 30 million from Novartis, AMoon Fund and SBI Japan-Israel Innovation Fund; and KPM Tech selling a 36 per cent stake in South Korean biopharmaceuticals company Abion for USD 20 million to ST Capital and Star Set Investment's ST StarSet Healthcare Fund.

US once again dominates biotech PE, VC and DC activity

There were 40 PE, VC and DC deals worth an aggregate USD 851 million targeting the US-based biotech sector announced in May, representing an increase of 18 per cent by volume and 22 per cent by value from 34 deals worth USD 696 million in April.

In the same order they placed in the top 20 deals by value, China, Israel and South Korea followed the US by value with USD 172 million, USD 30 million and USD 20 million, respectively. Value was recorded for only two other countries in May; these were France (USD 4 million) and the UK (USD 3 million).

Companies based in China and Germany were targeted in 3 deals and 2 deals, respectively, in the four weeks under review, while Israel, France, the UK, Iceland and South Korea all announced one deal each.

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.	200	Minority stake	Tempus Labs Inc.	Clinical and molecular technology developer	US	Franklin Resources Inc.; New Enterprise Associates Inc.; T Rowe Price Associates Inc.; Baillie Gifford & Co Ltd; Revolution LLC; Novo Holdings A/S	Completed
2.	171	Minority stake	Allist Pharmaceuticals, Inc	Bioengineering research services, Cardiovascular, acid related diseases and cancer related pharmaceuticals manufacturer	CN	Suzhou Industrial Park Bioventure Investment Management Ltd; Shiyu Capital; Nanjing Hi-Tech Xinchuang Investment Co., Ltd; Nanjing Gaoke Xijun Investment Management Co., Ltd; Huaxin Century Investment Group Co., Ltd; Xiamen Deyi Equity Investment; Loyal Valley Innovation Capital Management Co., Ltd; SDIC Unity Capital Co., Ltd; Shanghai Hanren Investment Holding Co., Ltd; Hidragon Capital Co., Ltd	Completed
3.	150	Minority stake	ElevateBio LLC	Biotechnology holding company	US	Redmile Group LLC; EcoR1 Capital LLC; Samsara BioCapital LLC; MPM Capital LP; F2 Ventures LLC	Completed
4.	121	Minority stake	AlloVir Inc.	Multi-virus specific T-cell immunotherapies developer	US	The Invus Group LLC; Fidelity Management & Research Company; Redmile Group LLC; F2 Ventures LLC; EcoR1 Capital LLC; Samsara BioCapital LLC; Leerink Partners LLC	Completed
5.	90	Minority stake	Phathom Pharmaceuticals LLC	Gastrointestinal diseases and disorders treatments developer	US	Frazier Management LLC; BVF Partners LP; RA Capital Management LLC; The Richard King Mellon Foundation; Abingworth LLP; Greenspring Associates Inc.; Medixi Ventures (UK) LLP; Janus Henderson Group plc; Sahsen Ventures	Completed
6.	55	Minority stake	Locana Inc.	Ribonucleic acid (RNA) gene therapy research and development services	US	ARCH Venture Partners LLC; Temasek Capital (Pte) Ltd; LSV Capital Management LLC; UCB Ventures Belgium NV	Completed
7.	50	Minority stake	CinCor Pharma Inc.	Cardiovascular, metabolic and kidney diseases treatment developer	US	Sofinnova Partners SAS; 5am Venture Management LLC; Sofinnova Investments Inc.	Completed
8.	30	Minority stake	Ayala Pharmaceuticals Inc.	Oncology drugs development services	IL	Harel Insurance Investments and Financial Services Ltd; Israel Biotech Fund GP Partners LP; SBI Capital Co., Ltd; AMoon Partners	Completed
9.	26	Minority stake	Chondrial Therapeutics Holdings Inc.	Biotechnology	US		Completed
10.	25	Minority stake	Imvax Inc.	Patient-specific vaccines and immunotherapy biotechnology developer	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.	20	Minority stake 36%	Abion Inc.	Biopharmaceuticals research and development services, Pharmaceutical manufacturer	KR	ST Capital Co., Ltd; Star Set Investment Co., Ltd	Completed
12.	20	Minority stake	LSK BioPartners Inc.	Biopharmaceuticals research and development services	US		Completed
13.	20	Minority stake	Scipher Medicine Corp	Biotechnology	US		Completed
14.	15	Minority stake	Neogene Therapeutics Inc.	Biotechnology	US		Completed
15.	13	Minority stake	Route 92 Medical Inc.	Biotechnology	US		Completed
16.	9	Minority stake	Coriell Life Sciences Inc.	Biotechnology	US		Completed
17.	9	Minority stake	Aardvark Therapeutics Inc.	Biotechnology	US		Completed
18.	8	Minority stake	Vigene Biosciences Inc.	Gene and cell therapy biotechnology research services provider	US		Completed
19.	5	Minority stake	Phoenix Cardiac Devices Inc.	Biotechnology	US		Completed
20.	5	Minority stake	LunaPBC Inc..	Biotechnology	US		Completed

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

Target country	May-18	Apr-19	May-19
US	50	34	40
China	4	3	3
Germany	0	0	2
Israel	0	1	1
France	0	0	1
UK	4	4	1
Iceland	0	0	1
South Korea	1	1	1

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

Target country	May-18 (mil USD)	Apr-19 (mil USD)	May-19 (mil USD)
US	681	696	851
China	39	7	172
Israel	0	8	30
South Korea	5	35	20
France	0	0	4
UK	20	4	3

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	Redmile Group LLC	2	2	271	136
2	EcoR1 Capital LLC	2	2	271	136
3	Samsara BioCapital LLC	2	2	271	136
4	F2 Ventures LLC	2	2	271	136
5	Franklin Resources Inc.	1	1	200	200
6	Baillie Gifford & Co Ltd	1	1	200	200
7	Novo Holdings A/S	1	1	200	200
8	New Enterprise Associates Inc.	1	1	200	200
9	T Rowe Price Associates Inc.	1	1	200	200
10	Revolution LLC	1	1	200	200
11	Xiamen Deyi Equity Investment Management Co., Ltd	1	1	171	171
12	Loyal Valley Innovation Capital	1	1	171	171
13	Huaxin Century Investment Group Co., Ltd	1	1	171	171
14	Hidragon Capital Co., Ltd	1	1	171	171
15	Shanghai Hanren Investment Holding Co., Ltd	1	1	171	171
16	SDIC Unity Capital Co., Ltd	1	1	171	171
17	Nanjing Hi-Tech Xinchuang Investment Co., Ltd	1	1	171	171
18	Nanjing Gaoke Xinjun Investment Management Co., Ltd	1	1	171	171
19	Suzhou Industrial Park Bioventure Investment Management Ltd	1	1	171	171
20	Shiyu Capital	1	1	171	171

Biotech M&A down month-on-month and year-on-year

The volume and value of mergers and acquisitions (M&A) targeting the global biotech sector declined to 95 deals worth USD 3,138 million in May, representing a decrease of 17 per cent by volume and 32 per cent by value from 114 deals worth USD 4,630 million in April.

Volume represented the lowest-recorded result of the last 12-months under review, while value only remained higher than November 2018 (USD 2,488 million) and September 2018 (USD 3,071 million).

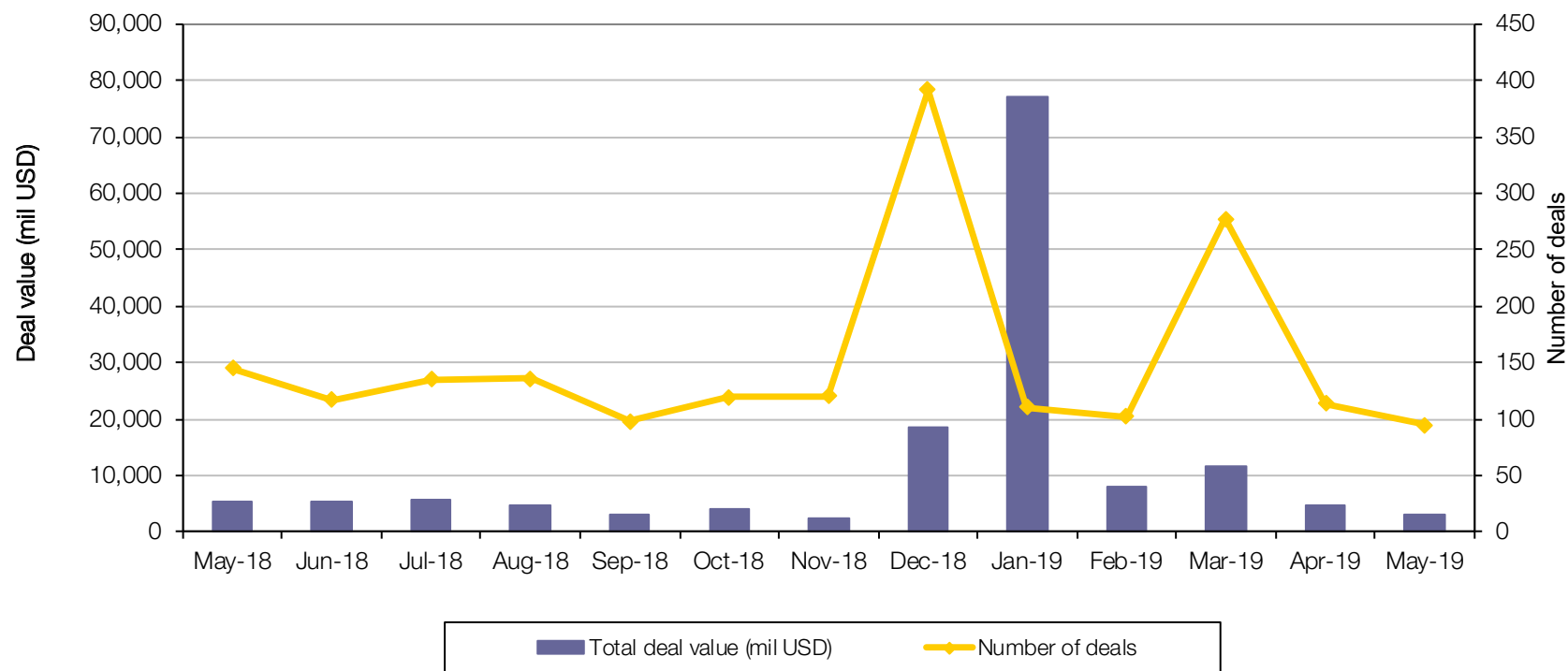
The largest deal announced in the biotech sector in May involved H Lundbek of Denmark picking up US-based neurological disease biopharmaceuticals group Abide Therapeutics for USD 400 million. This deal represents 13 per cent of total M&A value in May. Invesco acquired a minority stake in Spanish pharmaceutical products maker Grifols for USD 352 million and OEP Capital Advisors cut its interest in South Korean antibody therapy group Celltrion Healthcare for USD 319 million in the second- and third-largest deals., respectively

US companies, once again, led the way by both volume and value in May, with 50 deals worth USD 1,777 million, China was second by volume with 11 deals, while South Korea was the runner up by value with USD 509 million.

Deals by volume and value

Announced date	No of deals	Total deal value (mil USD)
May-19	95	3,138
Apr-19	114	4,630
Mar-19	277	11,511
Feb-19	102	8,025
Jan-19	110	77,054
Dec-18	392	18,518
Nov-18	120	2,488
Oct-18	119	4,173
Sep-18	98	3,071
Aug-18	136	4,723
Jul-18	135	5,563
Jun-18	117	5,397
May-18	145	5,497

Deals by volume and value



Top 20 deals by value

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	Acquiror	Deal status
1.	400	Acquisition 100%	Abide Therapeutics Inc.	Neurological disease biopharmaceuticals research and development services	US	H Lundbeck A/S	Announced
2.	352	Minority stake 3%	Grifols SA	In-vitro diagnostic substance manufacturer, Pharmaceutical research and development services, Plasma derivative pharmaceutical products manufacturer	ES	Invesco Ltd	Completed
3.	319	Minority stake 4%	Celltrion Healthcare Co., Ltd	Biosimilar antibody therapeutics and biopharmaceuticals research and development services, Pharmaceutical preparation manufacturer	KR		Completed
4.	200	Minority stake	Tempus Labs Inc.	Clinical and molecular technology developer	US	Franklin Resources Inc.; New Enterprise Associates Inc.; T Rowe Price Associates Inc.; Investors; Baillie Gifford & Co Ltd; Revolution LLC; Novo Holdings A/S	Completed
5.	171	Minority stake	Allist Pharmaceuticals, Inc	Bioengineering research services, Cardiovascular, acid related diseases and cancer related pharmaceuticals manufacturer	CN	Suzhou Industrial Park Bioventure Investment Management Ltd; Shiyu Capital; Nanjing Hi-Tech Xinchuang Investment Co., Ltd; Nanjing Gaoke Xijun Investment Management Co., Ltd; Huaxin Century Investment Group Co., Ltd; Xiamen Deyi Equity Investment Management Co., Ltd; Loyal Valley Innovation Capital; SDIC Unity Capital Co., Ltd; Qidong Jiarui Property Co., Ltd; Shanghai Hanren Investment Holding Co., Ltd; Hidragon Capital Co., Ltd	Completed
6.	150	Capital Increase 3%	Array BioPharma Inc.	Small molecule cancer treatment biopharmaceuticals manufacturer, Small molecule cancer treatment biopharmaceuticals research and development services	US		Announced
7.	150	Minority stake	ElevateBio LLC	Biotechnology holding company	US	Redmile Group LLC; EcoR1 Capital LLC; Samsara BioCapital LLC; UBS Oncology Impact Fund LP	Completed
8.	147	Capital Increase 13%	Veracyte Inc.	Molecular diagnostics products developer	US		Completed
9.	144	Capital Increase 19%	Myovant Sciences Ltd	Clinical-stage women's health disease and endocrine-related biopharmaceutical therapies development services	BM		Completed
10.	135	Capital Increase 6%	Helixmith Co., Ltd	Gene and cell-based medicines research and development services, Pharmaceutical preparation manufacturer	KR		Announced

Top 20 deals by value (cont'd)

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	Acquiror	Deal status
11.	121	Minority stake	AlloVir Inc.	Multi-virus specific T-cell immunotherapies developer	US	The Invus Group LLC; Gilead Sciences Inc.; Fidelity Management & Research Company; Redmile Group LLC; F2 Ventures LLC; EcoR1 Capital LLC; Samsara BioCapital LLC; Leerink Partners LLC	Completed
12.	100	Capital Increase 13%	Athenex Inc.	Oncology drugs manufacturer, Oncology drugs research and development services	US	OrbiMed Advisors LLC; Perceptive Advisors LLC; Avoro Capital Advisors LLC	Completed
13.	90	Minority stake	Phathom Pharmaceuticals LLC	Gastrointestinal diseases and disorders treatments developer	US	Frazier Management LLC; BVF Partners LP; Institutional Investors; RA Capital Management LLC; The Richard King Mellon Foundation; Abingworth LLP; Greenspring Associates Inc.; Medicxi Ventures (UK) LLP; Janus Henderson Group plc; Sahsen Ventures	Completed
14.	57	Capital Increase 9%	Oxford BioMedica plc	Gene and cell therapy research and development services, Medical research products licensing services	GB	Novo Holdings A/S	Completed
15.	55	Minority stake	Locana Inc.	Ribonucleic acid (RNA) gene therapy research and development services	US	ARCH Venture Partners LLC; Temasek Capital (Pte) Ltd; LSV Capital Management LLC; GV; UCB Ventures Belgium NV	Completed
16.	50	Minority stake	CinCor Pharma Inc.	Cardiovascular, metabolic and kidney diseases treatment developer	US	Sofinnova Partners SAS; 5am Venture Management LLC; Sofinnova Investments Inc.	Completed
17.	47	Capital Increase 11%	Translate Bio Inc.	Clinical stage mRNA therapies and treatment developer	US	Accredited investors	Completed
18.	42	Capital Increase	Regulus Therapeutics Inc.	Micro-RNA blocking biopharmaceutical developer, Micro-RNA blocking biopharmaceutical manufacturer	US	Management; New Enterprise Associates Inc.; Directors; BVF Partners LP; EcoR1 Capital LLC; Sarissa Capital Management LP; Altium Capital Ltd; Samsara BioCapital LLC; Acorn Bioventures LP	Completed
19.	30	Minority stake	Ayala Pharmaceuticals Inc.	Oncology drugs development services	IL	Novartis AG; Harel Insurance Investments and Financial Services Ltd; Israel Biotech Fund; SBI Japan-Israel Innovation Fund; AMoon Fund	Completed
20.	26	Minority stake	Chondrial Therapeutics Holdings Inc.	Biotechnology	US		Completed

Target countries by volume

Target country	May-18	Apr-19	May-19
US	68	44	50
China	15	23	11
UK	12	14	9
South Korea	4	2	6
Japan	8	3	3
Germany	3	0	3
Spain	2	1	2
France	1	3	2
Taiwan	0	4	2
Italy	2	1	1
Hong Kong	1	0	1
Israel	0	1	1
Iceland	0	0	1
Bermuda	0	0	1
Sweden	1	3	1
Australia	5	4	1

Target countries by value

Target country	May-18 (mil USD)	Apr-19 (mil USD)	May-19 (mil USD)
US	3,804	2,473	1,777
South Korea	57	61	509
Spain	1	0	352
China	707	1,208	180
Bermuda	0	0	144
UK	41	162	76
Israel	0	8	30
Hong Kong	21	0	25
Taiwan	0	35	15
Japan	92	53	15
France	5	3	8
Germany	23	0	3
Sweden	7	17	3
Australia	20	4	2

IPOs by volume and value

Announced date	No of deals	Total deal value (mil USD)
May-19	3	284
Apr-19	10	751
Mar-19	3	406
Feb-19	3	101
Jan-19	3	225
Dec-18	5	288
Nov-18	2	447
Oct-18	2	352
Sep-18	6	203
Aug-18	3	120
Jul-18	4	194
Jun-18	8	1,237
May-18	7	915

May IPOs

	Deal value (mil USD)	Deal type	Target	Target business description	Target country	Announced date	Deal status
1.	115	Planned IPO on Nasdaq Global Market	Personalis Inc.	Human genome interpretation research and development services	US	23/05/2019	Announced
2.	86	Planned IPO	Akero Therapeutics Inc.	Metabolic balance biotechnology services	US	24/05/2019	Announced
3.	83	Planned IPO 25% on Shanghai Stock Exchange Sci-Tech Innovation Board	Zhejiang Orient Gene Biotech Co., Ltd	Diagnostic medical reagent manufacturer	CN	09/05/2019	Pending

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

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