



BRYAN, GARNIER & CO

MARKET UPDATE

HEALTHCARE

December 2018



A close-up, blue-tinted photograph of a microscope's objective lenses. The central lens is in focus, showing technical markings: 'PL', '20x', '0.40', and '160/0.17'. The background is blurred, showing other parts of the microscope and laboratory equipment.

HIGHLIGHTS

Dear Reader,

2018 was an epic year for biotech IPOs. Despite fewer companies listing this year compared to 2014, the previous record-breaker, (69 vs. 81) the total cash raised is higher at \$8.2bn vs. \$6.5bn, and sets a new standard. 2018's pricing was more bullish, too, with 83% of IPOs in their range or above. Back in 2014, it was just 57%. The monster IPOs of Moderna, Allogene and Rubius attracted huge sums of cash and surely helped hit this new height - but there was still \$7bn raised by 66 smaller biotechs.

On the M&A front, we saw biotechs snapped up by big pharma willing to put its cash on the table: in January, Sanofi opened the bidding, grabbing Bioverativ (c.\$11bn) quickly followed by Ablynx (\$4.45bn). Celgene acquired Juno for a whopping \$9bn, Cigna and Express Scripts merged (\$67bn), and there were many more transactions adding up to over \$225bn. But the clear winner is Takeda, whose \$62bn takeover of Shire kept us entertained throughout the year, from outbidding itself to provoking historic shareholder unrest.

The year was surprising from a pipeline perspective too, with 2 major big pharmas culling many programs: Pfizer cut diabetes, some of its cancer pipeline and CNS programs while Novartis dumped 20% of its programs.

2018 was also a major year for gene therapy. Of course, there is no way around the CRISPR babies story but we are waiting to see the consequences of investments in the field. Just as important was the summer release by Sangamo Therapeutics of results from the first ever in-vivo genome editing clinical trial. While there is still some fine-tuning to do, the phase 1/2 trial in MPSII (Hunter syndrome) was certainly not disappointing, showing reductions in glycosaminoglycans. The company didn't rest on its laurels, following up by announcing it had treated the first patient in a Phase 1/2 trial evaluating SB-FIX, an investigational in-vivo genome editing therapy for patients with hemophilia B. Then, CRISPR Therapeutics finally made it into clinics, putting an end to the suspense-filled EDITAS/CRISPR Tx-race.

Another story had us watching with baited breath: Theranos. At its peak, the company employed 800 people and was valued at over \$9bn. It all disappeared in the blink of an eye when it was revealed that tests were run on other companies' commercial analysers instead of the proprietary system supposed to allow dozens of tests from just a few drops of blood. Theranos cut prices not because it had a technology to do so but because it was a money-losing startup burning cash raised from venture capitalists. Duped big pharmas, pharmacies and investors were left dumbfounded by a horror show that will surely haunt them for years to come.

It's hard to say goodbye to significant year but we have to call it! On behalf of everyone at Bryan, Garnier & Co, all the best for 2019.

HERVE RONIN
Partner | Bryan, Garnier & Co

+6.5%
5Y-CAGR

*Worldwide prescription
drugs -expected sales*

+5.3%
5Y-CAGR

*Medtech market -
expected growth*

-5.9% / -11.2%

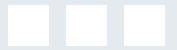
*Monthly EU Pharma &
biotech performance*

22 / \$1.80 bn

*Number & total value
of US ECM deals priced
in December*

**Black market
insulin**

*Desperate diabetic
patients are turning to
black market or dose
rationing to access the
drug deemed out of
reach by many of
them, turning the
public health matter
into politics*



DECEMBER AT A GLANCE — FOCUS ON EUROPE

EQUITY MARKETS

- European and US markets plummeted in December and Biotech stocks were particularly affected, losing more than 10%. Markets remained nervous both in Europe (V2X:+29%) and in the US (VIX: +41%)
- Monthly US / EU Biotech perf.: -11.3% / -11.2%
- Monthly US / EU Pharma perf.: -6.6% / -5.9%

INDUSTRY & SCIENCE

- **News of the month: Medigene reports positive interim results for its DC Vaccine in AML**
- Medigene reported 12-month interim data in 20 patients suffering from Acute Myeloblastic Lymphoma. Overall survival reached 89%
- The completion of the trial is expected at the end of 2019, with the release of results at 24 months

FINANCING

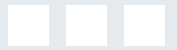
- **Raise of the month: Santhera, follow-on offering to acquire exclusive option from Idorsia**
- Santhera, a Swiss company specialized in rare diseases successfully raised CHF 23.5m by means of an accelerated bookbuilding
- The company will pay \$20m to Idorsia for the cash component of the exclusive option to sub-license vamorolone, currently in Phase 2b in DMD patients

M&A

- **Transaction of the month: Taisho Pharmaceuticals acquires UPSA from Bristol-Myers Squibb for \$1.6 bn.** UPSA was the French OTC brand of BMS and its portfolio covers a wide range of therapeutic areas such as pain, cough & cold, gastrointestinal and sleep
- GSK bags oncology-focused Tesaro for \$5.1 bn. Tesaro markets Zejula for ovarian cancer (PARP inhibitor), and also develops an anti-PD-1 antibody (dostarlimab)

NEXT MONTH

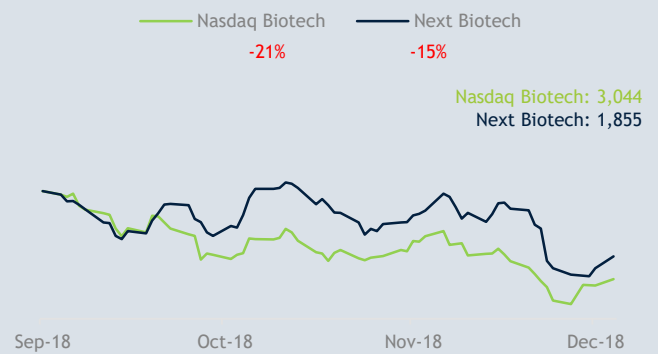
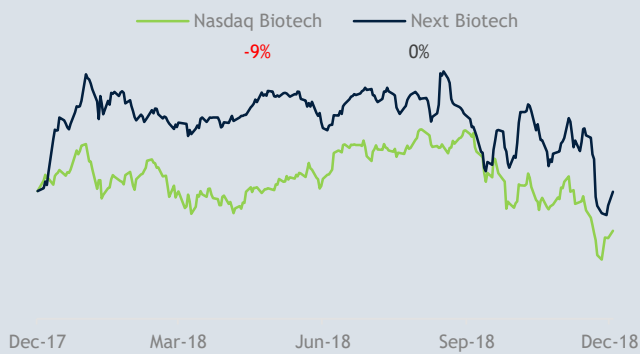
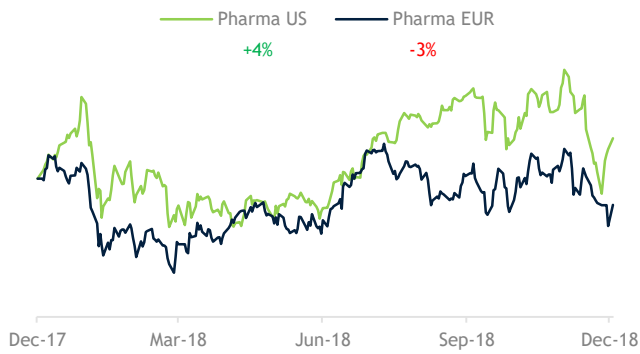
- **JP Morgan Healthcare Conference (01/07-10):** the 37th edition of the annual investment symposium will take place in San Francisco, USA, and may bring significant news events for healthcare companies
- **FY-2018 Results:** Novartis (01/30), Roche (01/31)
- **Conference and events in January:** ASCO-Gastrointestinal (01/17-19), World Stem Cell Summit (01/22-25)

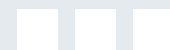


EQUITY MARKETS



1-YEAR PERFORMANCE

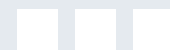
3-MONTH PERFORMANCE







EURONEXT HEALTHCARE COMPANY PERFORMANCE

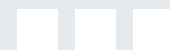
Pharmaceuticals 			Performance	
Company	Exchange	Mkt Cap (€m)	2018	1 Month
SANOFI	EN Paris	94 499	10.3%	-5.2%
UCB SA	EN Brussels	13 709	9.8%	-4.0%
IPSEN	EN Paris	9 238	14.2%	-0.7%
FAGRON	EN Brussels	1 025	26.0%	-5.2%
VIRBAC SA	EN Paris	988	-7.9%	-5.6%
BOIRON SA	EN Paris	857	-33.1%	-6.8%
VETOQUINOL SA	EN Paris	585	-15.3%	2.2%
STALLERGENES GRE	EN Paris	556	-26.5%	-16.9%
Biotechs 			Performance	
Company	Exchange	Mkt Cap (€m)	2018	1 Month
GALAPAGOS NV	EN Amsterdam	4 323	2.0%	-9.7%
ARGENX SE	EN Brussels	3 111	62.2%	-0.8%
MITHRA PHARM	EN Brussels	749	94.9%	-22.8%
CELLECTIS	EN Paris	636	-36.7%	-21.9%
GENFIT	EN Paris	545	-27.5%	-15.1%
INNATE PHARMA SA	EN Paris	467	56.5%	-16.0%
PHARMING GRP NV	EN Amsterdam	473	-33.1%	-3.9%
DBV TECHNOLOGIES	EN Paris	370	-74.7%	-59.7%
VALNEVA SE	EN Paris	286	14.4%	-7.0%
NANOBIOTIX	EN Paris	230	-21.5%	-4.6%
KIADIS PHARM	EN Amsterdam	217	-3.7%	-10.2%
CELYAD	EN Brussels	212	-52.1%	-31.7%
TRANSGENE SA	EN Paris	171	-3.5%	-9.0%
NICOX SA	EN Paris	161	-50.6%	1.0%
AB SCIENCE SA	EN Paris	142	-58.4%	-12.6%
OXURION NV	EN Brussels	139	7.0%	-3.5%
MEDINCELL SA	EN Paris	134	n.a.	-5.7%
POXEL SA	EN Paris	132	-22.5%	-14.7%
PHARNEXT SA	EN Paris	135	31.3%	4.5%
INVENTIVA SA	EN Paris	125	13.5%	-4.7%
ABIVAX SA	EN Paris	126	37.2%	10.9%
ERYTECH PHARMA	EN Paris	114	-66.2%	-7.4%
ADOCIA SAS	EN Paris	111	15.3%	31.1%
GENSIGHT	EN Paris	88	-46.1%	25.2%
ADVICENNE	EN Paris	83	-31.9%	-17.8%
GENKYOTEX SA	EN Paris	78	-38.8%	-20.0%
QUANTUM GEN-REGR	EN Paris	70	69.5%	35.9%
ACACIA PHARMA GR	EN Brussels	79	n.a.	-37.3%
THERANEXUS SADIR	EN Paris	52	20.7%	13.4%
GENEURO SA	EN Paris	50	-39.8%	-12.9%
OSE IMMUNO	EN Paris	50	-11.7%	0.9%
ONXEO	EN Paris	47	-19.3%	-8.5%
ONCODESIGN	EN Paris	44	-43.1%	-16.8%
BONE THERAPEUTIC	EN Brussels	37	-42.1%	-32.1%
ASIT BIOTECH SA	EN Brussels	30	-55.2%	-32.0%
BIOPHYTIS	EN Paris	24	-63.8%	1.7%
LYSOGENE SA	EN Paris	22	-57.9%	1.3%
NEOVACS	EN Paris	22	-55.9%	-6.5%
PROBIODRUG AG	EN Amsterdam	21	-75.8%	-12.9%
PLANT ADVANCED	EN Paris	16	-34.5%	-1.8%
VALBIOTIS SAS	EN Paris	14	-49.1%	-2.4%
SENSORION SA	EN Paris	14	-72.8%	-11.4%
GENOWAY SA	EN Paris	13	8.0%	5.9%
CERENIS THERAPEU	EN Paris	9	-74.3%	-69.1%
INTEGRAGEN	EN Paris	7	-56.3%	-2.2%
ESPERITE	EN Amsterdam	5	-74.6%	-17.5%
HYBRIGENICS	EN Paris	4	-86.8%	48.8%





EURONEXT HEALTHCARE COMPANY PERFORMANCE

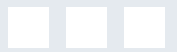
Medical Products & Devices 			Performance	
Company	Exchange	Mkt Cap (€m)	2018	1 Month
SARTORIUS STEDIM	EN Paris	7 918	-45.8%	-2.3%
BIOMERIEUX	EN Paris	6 605	-22.7%	-7.7%
EUROFINS SCIEN	EN Paris	5 808	-35.5%	-14.9%
GUERBET	EN Paris	623	-32.9%	-10.3%
BIOCARTIS NV	EN Brussels	525	-16.8%	-16.3%
ION BEAM APPLICA	EN Brussels	366	-46.2%	-22.2%
CARMAT	EN Paris	222	8.5%	15.5%
LUMIBIRD	EN Paris	183	56.8%	-10.9%
AMPLITUDE SURGIC	EN Paris	139	-22.3%	-6.5%
MDXHEALTH	EN Brussels	114	-42.4%	-13.1%
EOS IMAGING SA	EN Paris	90	-29.2%	-10.1%
BIOM'UP SACA	EN Paris	66	-65.3%	-10.8%
MAUNA KEA TECHNO	EN Paris	52	-57.6%	-20.9%
VOLUNTIS SA	EN Paris	38	n.a.	-15.4%
PIXIUM VISIO	EN Paris	37	-33.8%	8.0%
MEDICREA INTERNA	EN Paris	39	-23.7%	-6.5%
CURETIS AG	EN Amsterdam	32	-62.0%	-8.0%
SUPERSONIC	EN Paris	32	-27.7%	-9.7%
EUROBIO-SCIENTIF	EN Paris	31	-35.1%	-19.4%
BIOCORP	EN Paris	29	-35.3%	4.0%
BIOSYNEX	EN Paris	23	-24.9%	-3.5%
CELLNOVO GROUP S	EN Paris	23	-60.9%	-11.8%
EUROMEDIS GROUPE	EN Paris	20	-8.1%	-0.8%
I CERAM	EN Paris	19	-58.1%	-16.4%
BLUELINEA	EN Paris	18	-36.1%	-19.9%
CROSSJECT	EN Paris	17	-73.1%	-4.3%
NOVACYT	EN Paris	15	-43.8%	5.1%
MEDIAN TECHNOLOG	EN Paris	12	-89.0%	-59.7%
DMS	EN Paris	11	-50.8%	0.6%
STENTYS	EN Paris	11	-71.4%	-23.2%
THERADIAG	EN Paris	8	-58.1%	-10.4%
VISIONED GROUP	EN Paris	6	-86.0%	10.9%
SAFE ORTHOPAEDIC	EN Paris	6	-73.7%	-20.5%
THERACLION	EN Paris	6	-83.6%	-16.3%
IMPLANET	EN Paris	5	-66.4%	-14.5%
SPINEGUARD	EN Paris	5	-77.1%	-3.5%
GENOMIC VIS	EN Paris	4	-90.6%	-35.0%
SPINEWAY	EN Paris	3	-94.9%	-8.8%

Healthcare Services 			Performance	
Company	Exchange	Mkt Cap (€m)	2018	1 Month
ESSILORLUXOTTICA	EN Paris	47 213	-2.6%	-1.5%
ORPEA	EN Paris	5 730	-8.4%	-4.7%
KORIAN	EN Paris	2 477	7.8%	-8.9%
RAMSAY GENERALE	EN Paris	1 625	35.9%	8.1%
LNA SANTE	EN Paris	435	-25.6%	-9.6%
BASTIDE	EN Paris	197	-53.4%	-22.6%





LONDON HEALTHCARE COMPANY PERFORMANCE

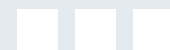
Pharmaceuticals 			Performance	
Company	Exchange	Mkt Cap (£m)	2018	1 Month
ASTRAZENECA PLC	London	74 793	19.3%	-4.0%
GLAXOSMITHKLINE	London	74 487	19.0%	-8.0%
SHIRE PLC	London	42 004	18.1%	0.4%
HIKMA PHARMACEUT	London	4 117	54.2%	-3.6%
BTG PLC	London	3 208	8.9%	-0.6%
HUTCHISON CHINA	London	2 400	-37.5%	-32.7%
ABCAM PLC	London	2 257	4.3%	-4.0%
DECHRA PHARMA	London	2 150	-0.1%	-4.2%
INDIVIOR PLC	London	830	-72.5%	10.2%
VECTURA GROUP	London	471	-40.5%	-4.1%
Biotechs 			Performance	
Company	Exchange	Mkt Cap (£m)	2018	1 Month
OXFORD BIOMEDICA	London	433	59.8%	0.1%
ALLIANCE PHARMA	London	341	1.4%	-3.3%
BENCHMARK HOLDIN	London	321	3.6%	-3.4%
ECO ANIMAL HEALT	London	279	-29.5%	-7.5%
CIRCISSIA PH	London	184	-53.8%	-15.8%
BIOVENTIX PLC	London	158	29.2%	-8.5%
VERSEON CORP	London	152	-17.3%	3.1%
MEREO BIOPHARMA	London	129	-44.5%	-5.0%
MAXCYTE INC	London	97	-21.6%	-4.5%
MOTIF BIO PLC	London	94	-23.5%	14.0%
VERONA PHARMA PL	London	92	-16.3%	-16.7%
ALLERGY THERAPEU	London	87	-52.2%	-2.7%
TIZIANA LIFE SCI	London	86	-54.7%	-0.8%
TISSUE REGENIX G	London	76	-29.7%	-0.8%
ONCIMMUNE HOLDIN	London	71	9.5%	25.7%
4D PHARMA PLC	London	69	-68.6%	-20.3%
AMRYT PHARMA PLC	London	47	-13.0%	38.9%
C4X DISCOVERY HO	London	39	-14.6%	-6.9%
SILENCE THERAPEU	London	37	-73.1%	-42.4%
SHIELD THERAPEUT	London	36	-72.9%	-9.8%
SCANCELL HOLDING	London	34	-28.2%	12.0%
CATHAY INTL HLDG	London	29	-1.6%	-9.1%
FARON PHARMACEUT	London	17	-93.1%	-5.1%
SUMMIT THERAPEUT	London	17	-88.5%	-2.5%
SKINBIOTHERAPEUT	London	16	47.9%	-28.5%
RENEURON GROUP P	London	15	-73.9%	-13.3%
IMMUPHARMA PLC	London	17	-93.1%	-13.3%
SAREUM HOLDINGS	London	15	-38.2%	-25.0%
DIURNAL GROUP PL	London	14	-85.0%	-10.2%
FUTURA MEDICAL	London	12	-79.2%	-3.6%
MIDATECH PHARMA	London	4	-83.3%	-38.5%




LONDON HEALTHCARE COMPANY PERFORMANCE


Medical Products & Devices 			Performance	
Company	Exchange	Mkt Cap (£m)	2018	1 Month
SMITH & NEPHEW	London	12 515	16.0%	2.7%
CONVATEC GROUP P	London	2 673	-30.9%	-8.6%
ADVANCED MEDICAL	London	582	-13.1%	-6.0%
CONSORT MEDICAL	London	459	-18.5%	-6.2%
CREO MEDICAL GRO	London	241	186.3%	11.8%
MEDICA GROUP PLC	London	139	-39.9%	-13.1%
BIOQUELL PLC	London	131	119.8%	2.3%
EKF DIAGNOSTICS	London	128	15.2%	-3.4%
TRISTEL PLC	London	110	0.8%	5.3%
IMMUNODIAGNOSTIC	London	53	-32.0%	-6.4%
AVACTA GROUP PLC	London	35	-52.3%	35.0%
NETSCIENTIFIC PL	London	5	-90.8%	-76.3%


Healthcare Services 			Performance	
Company	Exchange	Mkt Cap (£m)	2018	1 Month
CLINIGEN GROUP P	London	969	-26.4%	-13.3%
OXFORD BIODYNAMI	London	193	22.4%	2.4%
ANPARIO PLC	London	75	-17.0%	-17.1%
ERGOMED PLC	London	74	-14.4%	3.0%
HVIVO PLC	London	22	-49.1%	-9.7%




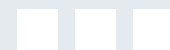
GERMAN HEALTHCARE COMPANY PERFORMANCE

Pharmaceuticals 			Performance	
Company	Exchange	Mkt Cap (€m)	2018	1 Month
BAYER AG-REG	Xetra	56 960	-39.2%	-6.8%
MERCK KGAA	Xetra	39 321	1.8%	-7.5%
DERMAPHARM HOLDI	Xetra	1 269	n.a.	-5.1%
BIOTEST AG	Xetra	982	15.0%	0.6%
ECKERT & ZIEGLER	Xetra	326	74.7%	-7.1%
BIOFRONTERA AG	Xetra	240	20.7%	-8.1%
MEDIGENE AG	Xetra	196	-42.0%	-22.5%
MAGFORCE AG	Xetra	141	-20.8%	-12.7%
HAEMATO AG	Xetra	108	-3.4%	-5.3%
CO.DON AG	Xetra	65	-53.9%	-14.8%
SANOCHEMIA PHARM	Xetra	17	-19.3%	-19.3%


Biotechs 			Performance	
Company	Exchange	Mkt Cap (€m)	2018	1 Month
MORPHOSYS AG	Xetra	2 924	16.2%	-12.0%
EVOTEC AG	Xetra	2 714	28.6%	-15.9%
FORMYCON AG	Xetra	238	-20.5%	-13.2%
PAION AG	Xetra	147	-19.0%	-10.1%
4SC AG	Xetra	86	-43.9%	-10.5%
HEIDELBERG PHARM	Xetra	69	-25.8%	-15.1%
MOLOGEN AG	Xetra	18	-85.3%	-51.1%
CYTOTOOLS AG	Xetra	14	-35.6%	-16.4%
ELANIX BIOTECHNO	Xetra	11	-60.9%	-45.4%


Medical Products & Devices 			Performance	
Company	Exchange	Mkt Cap (€m)	2018	1 Month
SIEMENS HEALTHIN	Xetra	36 800	n.a.	-4.7%
FRESENIUS SE & C	Xetra	24 118	-34.2%	-15.7%
FRESENIUS MEDICA	Xetra	17 641	-34.7%	-20.9%
SARTORIUS AG	Xetra	7 623	27.9%	-4.0%
CARL ZEISS ME-BR	Xetra	6 247	33.4%	11.6%
DRAEGERWERK-PREF	Xetra	787	-35.1%	-3.1%
STRATEC SE	Xetra	601	-21.5%	-8.4%
PULSION MED SY-R	Munich	186	-8.4%	-1.7%
EPIGENOMICS AG	Xetra	64	-55.5%	-11.9%
HUMANOPTICS AG	Frankfurt	56	78.4%	-5.0%
GERATHERM MEDICA	Xetra	45	-23.8%	-8.3%
AAP IMPLANTATE	Xetra	33	-37.2%	-0.4%
CURASAN AG	Xetra	9	-56.9%	0.0%


Healthcare Services 			Performance	
Company	Exchange	Mkt Cap (€m)	2018	1 Month
RHOEN-KLINIKUM	Xetra	1 483	-25.5%	-0.8%
MEDICLIN AG	Xetra	271	-7.2%	1.8%
M1 KLINIKEN AG	Xetra	259	15.9%	26.1%
VITA 34 AG	Xetra	45	-2.1%	-7.2%
MATERNUS-KLINIKE	Xetra	39	-19.5%	-4.1%
EIFEL-KLINIK AG	Frankfurt	12	-39.2%	-8.3%




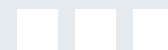
SWISS HEALTHCARE COMPANY PERFORMANCE

Pharmaceuticals 			Performance	
Company	Exchange	Mkt Cap (CHFm)	2018	1 Month
NOVARTIS AG-REG	SIX Swiss Ex	214 355	5.7%	-7.6%
ROCHE HLDG-GENUS	SIX Swiss Ex	209 308	2.5%	-6.1%
VIFOR PHARMA AG	SIX Swiss Ex	6 949	-13.3%	-13.2%
COSMO PHARMACEUT	SIX Swiss Ex	1 322	-40.0%	-15.1%
CASSIOPEA SPA	SIX Swiss Ex	366	5.2%	-15.1%

Biotech 			Performance	
Company	Exchange	Mkt Cap (CHFm)	2018	1 Month
IDORSIA LTD	SIX Swiss Ex	2 126	-36.3%	-14.6%
BASILEA PHAR-REG	SIX Swiss Ex	475	-47.4%	-23.2%
MOLECULAR PARTNE	SIX Swiss Ex	405	-27.5%	8.9%
POLYPHOR AG	SIX Swiss Ex	197	n.a.	-18.9%
EVOLVA HOLDING S	SIX Swiss Ex	177	-25.8%	-5.2%
NEWRON PHARMACEU	SIX Swiss Ex	100	-51.6%	-27.8%
SANTHERA PHA-REG	SIX Swiss Ex	72	-81.3%	-40.9%
ADDEX THERAPEUTI	SIX Swiss Ex	64	-1.7%	-4.7%
KUROS BIOSCIENCE	SIX Swiss Ex	35	-79.6%	-21.5%
RELIEF THERAPEUT	SIX Swiss Ex	11	-48.0%	-10.3%

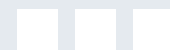
Medical Products & Devices 			Performance	
Company	Exchange	Mkt Cap (CHFm)	2018	1 Month
SONOVA HOLDING A	SIX Swiss Ex	10 492	7.1%	-0.5%
STRAUMANN HLDG-R	SIX Swiss Ex	9 813	-9.5%	1.1%
TECAN GROUP AG-R	SIX Swiss Ex	2 245	-5.0%	-7.0%
YPSOMED HOLD-REG	SIX Swiss Ex	1 467	-27.1%	-7.3%
MEDARTIS HOLDING	SIX Swiss Ex	650	n.a.	-10.4%
COLTENE HOLD-REG	SIX Swiss Ex	504	-7.5%	0.6%
IVF HARTMANN-REG	SIX Swiss Ex	384	-10.4%	-5.9%
SHL TELEMEDI-REG	SIX Swiss Ex	66	-3.3%	-10.0%

Healthcare Services 			Performance	
Company	Exchange	Mkt Cap (CHFm)	2018	1 Month
LONZA GROUP -REG	SIX Swiss Ex	18 967	-2.2%	-21.1%
BACHEM HOL-REG B	SIX Swiss Ex	1 545	-24.6%	-8.2%
DOTTIKON ES H-RE	SIX Swiss Ex	578	-43.8%	-1.3%



KEY SECTOR NEWS IN DECEMBER

DATE	NEWS
20 Dec 18	MEDIGENE - Good interim ph I/II data from DC vaccine trial in AML
20 Dec 18	GSK - GSK makes long-awaited move to split the group in two parts
20 Dec 18	DBV TECHNOLOGIES - Few details on resubmission timeline following BLA withdrawal
17 Dec 18	ROCHE - A clearer and clearer view on the timing of upcoming battle against biosimilars in the US
13 Dec 18	NOVARTIS - A lower share of a bigger market: ECLIPSE is seen more or less neutral for Cosentyx
13 Dec 18	MORPHOSYS - Tremfya strong in phase III against Cosentyx
13 Dec 18	DBV TECHNOLOGIES - Confidence reiterated ahead of key catalyst
11 Dec 18	GSK - ViiV future growth is dependent on 2-drug regimen's success
11 Dec 18	FRESENIUS SE - Fully rebased and cheap should overweight the lack of ST catalysts
10 Dec 18	NOVARTIS - Will Cosentyx continue to shine after ECLIPSE?
7 Dec 18	FRESENIUS SE - 2019 to be a transition year
6 Dec 18	ROCHE - KATHERINE, "j'adore!"
6 Dec 18	GENFIT - Very strong phase II results in PBC
6 Dec 18	BAYER - Decent growth until 2022 but glyphosate will weigh
5 Dec 18	ORPEA - Feedback analysts field trip Austria: Structured for growth
4 Dec 18	GSK - An expensive come back in oncology
4 Dec 18	GENMAB - ASH 2018 confirms once again Darzalex's domination
4 Dec 18	CELYAD - ASH: Celyad presents updated CYAD-01 results

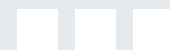


EUROPEAN FUNDRAISING : IPO & FOLLOW-ONS

Last
month

Pricing Date	Issuer	Country	Industry	Size (€m)	Offer type	Offer To Date
14 Dec 18	Axovant Sciences Ltd	BRITAIN	Medical-Biomedical/Gene	26	Follow-on	0%
14 Dec 18	Santhera Pharmaceuticals Holdi	SWITZERLAND	Medical-Drugs	21	Follow-on	-10%
7 Dec 18	Q-Linea AB	SWEDEN	Diagnostic Equipment	54	IPO	-11%
6 Dec 18	Quotient Ltd	BRITAIN	Diagnostic Equipment	61	Follow-on	-6%
6 Dec 18	XSpray Pharma AB	SWEDEN	Medical-Biomedical/Gene	9	Follow-on	0%
29 Nov 18	Zur Rose Group AG	SWITZERLAND	Medical-Whsle Drug Dist	104	Follow-on	-4%
26 Nov 18	Amarin Corp PLC	IRELAND	Medical-Biomedical/Gene	176	Follow-on	0%
14 Nov 18	Hansa Medical AB	SWEDEN	Medical Labs&Testing Srv	66	Follow-on	0%
7 Nov 18	Curetis NV	GERMANY	Diagnostic Equipment	9	Follow-on	-25%
7 Nov 18	Garofalo Health Care SpA	ITALY	Medical-Hospitals	67	IPO	9%
6 Nov 18	Alzecure Pharma AB	SWEDEN	Medical-Drugs	19	IPO	-22%
30 Oct 18	Orchard Therapeutics plc	BRITAIN	Medical-Biomedical/Gene	174	IPO	8%
26 Oct 18	Oryzon Genomics SA	SPAIN	Medical-Biomedical/Gene	13	Follow-on	11%
19 Oct 18	Kiadis Pharma NV	NETHERLANDS	Medical-Biomedical/Gene	31	Follow-on	6%
4 Oct 18	Laboratorios Farmaceuticos Rov	SPAIN	Medical-Drugs	88	Follow-on	20%
3 Oct 18	Medincell SA	FRANCE	Medical-Biomedical/Gene	30	IPO	-3%
2 Oct 18	GW Pharmaceuticals PLC	BRITAIN	Therapeutics	259	Follow-on	-22%
27 Sep 18	Clinigen Group Plc	BRITAIN	Drug Delivery Systems	90	Follow-on	3%
27 Sep 18	Nightstar Therapeutics PLC	BRITAIN	Medical-Biomedical/Gene	61	Follow-on	-17%
27 Sep 18	Valneva SE	FRANCE	Medical-Biomedical/Gene	50	Follow-on	-9%
20 Sep 18	CRISPR Therapeutics AG	SWITZERLAND	Medical-Biomedical/Gene	171	Follow-on	-19%
18 Sep 18	Argenx SE	NETHERLANDS	Medical-Biomedical/Gene	257	Follow-on	12%
12 Sep 18	Galapagos NV	BELGIUM	Medical-Drugs	297	Follow-on	-14%
7 Sep 18	ProQR Therapeutics NV	NETHERLANDS	Medical-Drugs	90	Follow-on	21%
7 Sep 18	Adaptimmune Therapeutics Plc	BRITAIN	Medical-Biomedical/Gene	86	Follow-on	-38%
5 Sep 18	Ambu A/S	GERMANY	Medical Instruments	398	Follow-on	-40%
28 Aug 18	Sonova Holding AG	SWITZERLAND	Medical Products	276	Follow-on	-9%
27 Aug 18	Wright Medical Group NV	NETHERLANDS	Medical Products	384	Follow-on	14%
16 Aug 18	Oncopeptides AB	SWEDEN	Medical-Drugs	17	Follow-on	26%
27 Jul 18	Orpea	FRANCE	Medical-Nursing Homes	64	Follow-on	-19%
26 Jul 18	Nabriva Therapeutics PLC	IRELAND	Medical-Drugs	43	Follow-on	-26%
19 Jul 18	ADL Bionatur Solutions SA	SPAIN	Medical-Biomedical/Gene	12	Follow-on	-20%
19 Jul 18	Allergy Therapeutics PLC	BRITAIN	Medical-Drugs	12	Follow-on	-47%
18 Jul 18	AC Immune SA	SWITZERLAND	Medical-Drugs	86	Follow-on	-5%
13 Jul 18	Creo Medical Group plc	BRITAIN	Medical Products	55	Follow-on	42%
12 Jul 18	Myovant Sciences Ltd	BRITAIN	Medical-Drugs	64	Follow-on	-18%
11 Jul 18	Idorsia Ltd	SWITZERLAND	Medical-Drugs	262	Follow-on	-26%

3
months



PRIVATE EQUITY MARKET ACTIVITY

Recent notable M&A / fundraisings in France, Germany, UK, Netherlands, Switzerland & Belgium ⁽¹⁾

DATE	TARGET	CTY	DESCRIPTION	BUYER / INVESTOR
Dec 18	Tonipharm	FR	Company active in the self-medication and OTC market	Recordati
Dec 18	CellforCure	FR	CDMO producing cell and gene therapies in Europe	Novartis
Dec 18	UPSA (BMS)	FR	Consumer Health Business	Taisho Pharmaceuticals
Dec 18	Evitria	CH	Custom antibodies for research purposes	Afinum
Dec 18	Nestor Primcare	UK	Homecare services in England, Scotland and Wales	Health Care Resourcing
Dec 18	MediaPark Klinik	DE	Operator of orthopedic hospitals	ATOS
Nov 18	BTG	UK	Minimally-invasive products in cancer and vascular diseases	Boston Scientific
Nov 18	Stilla Technologies	FR	Developer of digital PCR for research and molecular diagnostics	Illumina, Kurma, LBO Fr
Nov 18	Bioesterel	FR	Network of medical and biology laboratories	Biogroup-LCD
Nov 18	DOREA Famille	DE	Operator of care and retirement homes	Maisons de Famille Gr.
Nov 18	CC Pharma	DE	Distributor of pharmaceutical products	Aphria
Nov 18	Petit-Fils	FR	French network of home help services for dependent elderly people	Korian Group
Nov 18	Omeicos Therap.	DE	First-in-class molecule for cardiovascular and ophthalmic diseases	Forbion, Vesalius,...
Nov 18	Nyxoah	BE	Neurostimulation therapy for patients suffering from Sleep Apnea	Cochlear
Nov 18	Amal Therapeutics	CH	Cancer vaccine developer	BI Venture, Biomed
Nov 18	Roivant Sciences	CH	Medical drug developer	Novaquest, RTW
Nov 18	Camel-IDS	BE	Cancer-targeted radiopharmaceuticals	V-Bio, Gimv, Healthcap,...
Nov 18	CMS Unternehmens	DE	Operator of nursing homes	Alloheim
Oct 18	Accolab	FR	Operator of medical biology laboratories	Cerba Healthcare
Oct 18	BioPath/Polibio/SFMT	FR	Operators of medical biology laboratories	Unilabs
Oct 18	Visiomed AG	DE	Dermoscopy systems for 3D imaging, clinical photography...	Canfield Scientific
Oct 18	Nemera	FR	Manufacturer of drug administration systems	Astorg
Oct 18	Eco-Dex	FR	Devices for automatic dispensation of solid oral drugs	SantaLucia Pharma
Oct 18	Owlstone Medical	UK	Breathalyzer developer for diagnostics	Horizon, Ventura, Foxconn
Oct 18	Sitryx Therapeutics	UK	Biotech company specializing in immuno-oncology and inflammation	SV Health, Sofinnova, GSK
Oct 18	Sphingotec	DE	Medical diagnostics	HBM, Wellington
Oct 18	Novaliq	DE	Therapies against eye disease	Dievini Hopp
Oct 18	Oxford Nanopore	UK	DNA sequencing company	Amgen
Oct 18	Clinical Trials Lab	UK	High quality serum, plasma and blood collection services	BioVT
Sep 18	Emerging Implant	DE	Manufacturer of 3D-printed titanium for spinal fusion surgery	Johnson & Johnson
Sep 18	Systagenix	UK	Manufacturer and supplier of wound care products	Scapa Group
Sep 18	ViraTherapeutics	AT	Developer of oncolytic viral therapies	Boehringer Ingelheim
Sep 18	Tusk Therapeutics	BE	Developer of therapeutic antibodies for the treatment of cancer	Roche
Aug 18	Blueberry Therap.	UK	Nanomedicine for skin and nail infections	China Medical System
Aug 18	Orchard Therap.	UK	Commercial stage company focusing on rare disease	Deerfield, RA Capital, etc.

⁽¹⁾ Please contact the Bryan Garnier team directly for any detail regarding valuation and transaction size of private company deals



YOUR TEAM FOR HEALTHCARE

CORPORATE FINANCE

OLIVIER GARNIER
Managing Partner
 +33 1 56 68 75 71
ogarnier@bryangarnier.com

SANDRINE CAILLETEAU
Managing Director
 +33 1 56 68 75 26
scailleteau@bryangarnier.com

VINCENT MEUNIER
Managing Director
 +33 1 56 68 75 69
vmeunier@bryangarnier.com

ANNE MOORE
Vice-President
 +33 1 56 68 75 39
amoore@bryangarnier.com

MICKAEL DUBOURD
Associate
 +33 1 56 68 75 30
mdubourd@bryangarnier.com

HERVÉ RONIN
Partner
 +33 1 70 36 57 22
hronin@bryangarnier.com

PHIL WALKER
Managing Director (UK)
 +44 207 332 2520
pwalker@bryangarnier.com

DAN DYSLI
Senior Advisor
 +41 79 525 2850
ddyсли@bryangarnier.com

ROMAIN ELLUL
Vice-President
 +33 1 56 68 75 51
rellul@bryangarnier.com

REMI NEGRE
Analyst
 +33 1 70 36 57 48
rnegre@bryangarnier.com

EQUITY RESEARCH / SALES

ERIC LE BERRIGAUD
Equity Analyst (Pharma)
 +33 1 56 68 75 33
eleberrigaud@bryangarnier.com

DOMINIC WILSON
Managing Director (UK)
 +44 207 332 2514
dwilson@bryangarnier.com

HUGO SOLVET
Equity Analyst (Medtech)
 +33 1 56 68 75 57
hsolvvet@bryangarnier.com

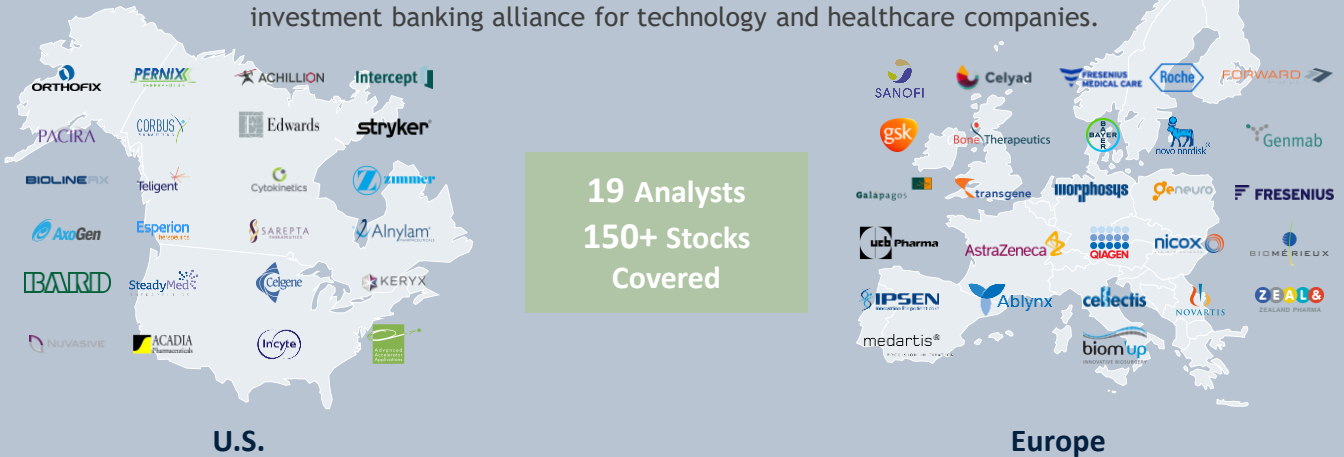
GARY WAANDERS
Managing Director (UK)
 +44 207 332 2545
gwaanders@bryangarnier.com

JEAN-JACQUES LE FUR
Equity Analyst (Pharma)
 +33 1 70 36 57 45
jjlefur@bryangarnier.com

VICTOR FLOC'H
Equity Analyst (Biotech)
 +33 1 56 68 75 92
vfloch@bryangarnier.com

JMP BRYAN GARNIER EQUITY RESEARCH COVERAGE

In November 2016 Bryan, Garnier & Co formed a partnership with JMP Securities LLC (NYSE : JMP) to create JMP Bryan Garnier, a full-service transatlantic investment banking alliance for technology and healthcare companies.



BRYAN, GARNIER & CO SELECTED CREDENTIALS

 CYCLOPHARMA Acquired by CURIUM LIFE FORWARD Undisclosed Advisor to the seller	 medartis [®] PRECISION IN FIXATION SIX IPO CHF 142,600,000 Joint Global Coordinator & Bookrunner	 biom'up INNOVATIVE BIOSURGERY Euronext Paris IPO & Follow-on €83,000,000 Sole Global Coordinator / Joint-Bookrunner	 symetis Acquired by Boston Scientific \$435,000,000 Advisor to the company	 ZEAL & Follow-on & IPO on Nasdaq OMX €70,000,000 Sole Bookrunner / Co-lead Manager	 Spineart Private Placement Gimv €30,000,000 Joint Lead Manager	 dbv Follow-on & Nasdaq IPO \$414,500,000 Joint Lead Manager & Bookrunner
--	--	---	--	--	--	--



BRYAN, GARNIER & CO

DEDICATED TO GROWTH

Bryan, Garnier & Co is a European, full service growth-focused independent investment banking partnership founded in 1996. The firm provides equity research, sales and trading, private and public capital raising as well as M&A services to growth companies and their investors. It focuses on key growth sectors of the economy including Technology, Healthcare, Consumer and Business Services. Bryan, Garnier & Co is a fully registered broker dealer authorized and regulated by the FCA in Europe and the FINRA in the U.S. Bryan, Garnier & Co is headquartered in London, with additional offices in Paris, Munich, Zürich and New York. The firm is a member of the London Stock Exchange and Euronext.

LONDON

Bryan, Garnier & Co Ltd

Beaufort House
15 St. Botolph Street
London EC3A 7BB
United Kingdom

+44 207 332 2500

PARIS

Bryan, Garnier & Co

26 Avenue des Champs-Élysées
75008 Paris
France

+ 33 1 56 68 75 20

MUNICH

Bryan, Garnier & Co. GmbH

Widenmayerstrasse 29
80538 Munich
Germany

+49 89 2422 62 11

NEW YORK

Bryan Garnier Securities LLC

750 Lexington Avenue
16th floor
New York, NY 10022
United States

+ 1 212 337 7000

bryangarnier.com

This document is based on information available to the public and other sources deemed reliable.

No representation or warranty, express or implied, is or will be made in relation to, and no responsibility or reliability is or will be accepted by Bryan Garnier & Company or any of its officers, employees or advisers as to the accuracy or completeness of this document or any other written or verbal information available to the recipient or its advisers.

While all reasonable care has been taken to ensure that the facts stated are accurate and the opinions given are fair and reasonable, neither we nor any of our affiliated companies nor any of our, or their directors, representatives or employees, accepts responsibility or liability for any loss or expense arising directly or indirectly from the use of this document or its or its contents. This document is not and should not be construed as an offer, or a solicitation of any offer, to buy or sell securities.

Bryan, Garnier & Co is authorised and regulated by the Financial Conduct Authority (FCA) in the United Kingdom.