



WORLD PREVIEW 2014, OUTLOOK TO 2020

Welcome to the EvaluatePharma® World Preview 2014, Outlook to 2020

The seventh edition of EvaluatePharma's World Preview brings together many of our analyses to provide a top level insight, from the world's financial markets, into the expected performance of the industry between now and 2020. Based on EvaluatePharma's coverage of the world's leading 4,800 pharmaceutical and biotech companies, the World Preview highlights trends in prescription drug sales, patent risk, R&D spend, global brand sales and market performance by therapy area. Also included in the report is a brief review of 2013 performance. Complimentary copies of the full report can be downloaded at: www.evaluategroup.com/wp2014.

About EvaluatePharma

Since 1996 EvaluatePharma has been providing senior decision makers within the pharmaceutical industry with an essential service that models the sector from the viewpoint of the world's financial markets.

EvaluatePharma's forward looking view of the market is hugely influential as it displays the consensus of expectations, which influence company stock market valuations. The forecasts of equity analysts reveal their perspectives on individual company performance, industry trends and the macro economic environment.

EvaluatePharma has captured the consensus forecasts of equity analysts and seamlessly integrated them with the historic results, as reported by companies. From this comprehensive view of the industry, its past and expected future performance emerges and can be analysed using EvaluatePharma. Analyses range from total market trends and therapeutic overviews to individual company performance and product progress.

Whatever your view on the future of the industry, EvaluatePharma is the essential guide to value in the pharma and biotech sector.

To find out more about this report and Evaluate's range of services contact us:

- **North America:**
Debbie Paul
Tel: +1 617 573 9453
Email: debbie.paul@evaluategroup.com
- **Rest of the World:**
Will Hau
Tel: +44 (0)20 7377 0800
Email: will.hau@evaluategroup.com
- **Japan:**
Hiroshi Yamazaki
Tel: + 81 (0) 80 1164 4754
Email: hiroshi.yamazaki@evaluategroup.com
- **For general questions:**
Christine Lindgren
Tel: +1 617 866 3906
Email: christine.lindgren@evaluategroup.com

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For the first time in the pharmaceutical industry's history, the consensus forecast of worldwide prescription drug sales is set to exceed one trillion dollars, reaching \$1,017bn by 2020, equating to an average growth of 5.1% per year from 2013 to 2020. Since the publication of last year's World Preview report, there has been an upward revision in annual growth from the already healthy 3.8% (CAGR 2012 to 2018) predicted last year, to 4.4% growth per year (CAGR 2012 to 2018) this year. This much improved growth outlook comes as welcome news after two years of actual sales stagnation – the patent cliff is now but a distant memory.

Biological products set to moderate impact of future patent expiries and support growth

Over the seven year period from 2014 to 2020, \$259bn of worldwide drug sales are at-risk from patent expiries; however, only 46% of this is expected to materialise. This compares with the 64% cannibalisation that occurred over the period 2007 to 2013. As discussed in the previous edition of the World Preview report, the reduced cannibalisation rate can be explained by an increasing proportion of sales deriving from biological products. With forecasts now to 2020, we have an extended view of how equity analysts are modelling the impact of biological patent expiries and the subsequent entry of bio-similar products: they continue to expect a softer landing, post patent expiry, and limited bio-similar substitution. It seems future metaphorical patent cliffs are being transformed into much more manageable rolling hills.

With forecasts now to 2020, we have an extended view of how equity analysts are modelling the impact of biological patent expiries and the subsequent entry of bio-similar products: they continue to expect a softer landing, post patent expiry, and limited bio-similar substitution.

2013 best year ever for new drug approvals

The quality of new drugs (NME/BLA) approved by the FDA in 2013 increased by 43%, versus 2012, with nine of the top ten forecast to reach blockbuster status (>\$1bn sales in the US) five-years post launch. This exceeds the record breaking year of 2012 and marks a step-change in innovation and output for the industry since 2009. In total, the class of 2013 is expected to add over \$24.4bn to total US prescription drug sales in 2018.

Drug pricing debate

In December 2013, Gilead Sciences received FDA approval for its new hepatitis C drug, Sovaldi, and recorded an unprecedented \$2.1bn of sales in its first full quarter on the US market. Current full-year sales for 2014 are forecast to be an equally impressive \$7.6bn in the US alone. Priced at \$1,000 per pill, or \$84,000 per treatment, some in the industry are questioning the basis of Gilead's pricing. Proponents, on the other hand, argue that the price per pill is irrelevant and economic benefit is a more rational basis for pricing discussions. Certainly, compared with the estimated cost of over \$500,000 for a liver transplant in the US to treat the more severe long-term complications of the disease, \$84,000 does not seem so disproportionate. The pricing debate will intensify as the industry continues to shift away from primary care and new technology waves offer innovative products that potentially take costs out of

healthcare. Governments and payers will need to be more flexible in budget planning to accommodate these revolutionary new products, but do not expect easy discussions on products offering marginal benefits over generic products that are the current standard treatment of care.

Surge in value of the industry's R&D pipeline

The current value (NPV) of the industry's R&D pipeline surged 46% over last year's report to \$418.5bn, this is the largest figure we have published since the first edition of the World Preview report in 2008. One technology wave that is taking the industry by storm is projects targeting the programmed death-1 (PD-1) pathway. The collective value of these projects is \$63.2bn, with the leading projects being Nivolumab (Bristol-Myers Squibb and Ono Pharmaceutical), MK-3475 (Merck & Co), RG7446 (Roche)

The collective value of these projects is \$63.2bn, with the leading projects being Nivolumab (Bristol-Myers Squibb and Ono Pharmaceutical), MK-3475 (Merck & Co), RG7446 (Roche) and MEDI4736 (AstraZeneca).

and MEDI4736 (AstraZeneca). Should these projects get approved the value will likely be revised upward, due to the removal of approval risk from the NPV.

R&D expenditure is forecast to grow at a modest 2.4% per year between 2013 to 2020, reaching \$162bn. The growth of R&D is below sales growth and continues the strategic industry theme of cost containment.

Strong Outlook

The Industry has clearly turned a corner and is set to enjoy a sustained period of growth (CAGR 2013 to 2020: 5.1%), supported by the cushion of soft biological patent expiries. The dramatically improved R&D productivity, two years of excellent new drug approvals, and a replenished industry R&D pipeline, set against a back drop of R&D cost containment, all suggest the fundamentals have changed. One industry dynamic that appears to have changed is the speed at which new technology waves are moving through the pipeline and hitting the market. The ability of companies to collectively demonstrate rapid increases in shareholder value (NPV) through R&D pipeline progression of early stage assets (PI/PII), has been the missing component preventing investors from piling back in – is this all about to change?

1: Quality of approvals measured as USA sales five-years post launch.

Paul A Hills

Head of Operations, Evaluate Ltd



EvaluatePharma® World Preview 2014 – Analysis Highlights

- Worldwide prescription drug sales forecast to exceed one trillion dollars in 2020 (CAGR: 5.1% between 2013 and 2020)
- In dollar terms, worldwide prescription drugs sales in 2013 relatively flat as the industry's patent cliff tapers off
- Bumper year for new drug approvals in US: sales potential of \$24.4bn, 43% higher than the class of 2012
- Value of industry's R&D pipeline surges 46% to \$419bn
- Bristol-Myers Squibb's anti-PD-1 monoclonal antibody, Nivolumab, becomes the most valuable R&D product at \$23bn
- Between 2014 and 2020, \$259bn of sales at risk from patent expiration, but only 46% expected to materialise due to softer erosions of biological products
- Humira projected to be world's largest selling product in 2020 with worldwide sales forecast to be \$12.7bn
- Novartis becomes top company by worldwide Rx sales in 2013; Pfizer number two
- Novartis expected to remain number one, in terms of worldwide Rx sales, in 2020
- Worldwide pharmaceutical R&D spend forecast to be \$162bn in 2020 (CAGR: 2.4% between 2013 and 2020)
- Oncology set to record highest worldwide sales growth of major therapy categories to 2020 (CAGR: 11.2% between 2013 and 2020)
- Within the top 100 prescription products in 2020, biological products expected to account for more than 50% of sales
- Teva Pharmaceutical remains leading generic drug maker in 2013
- Enterprise value of Gilead Sciences almost doubles over the course of the year

Best year for new
drug approvals since 1997

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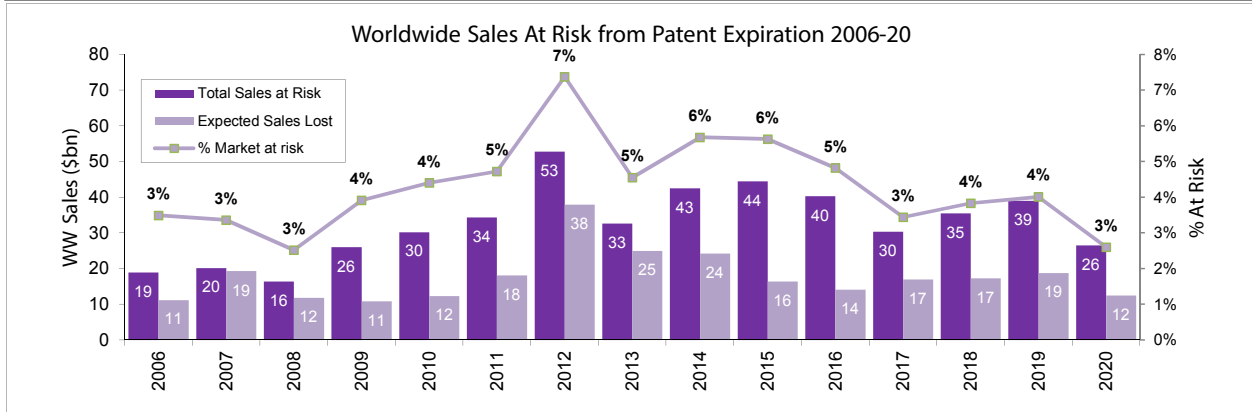
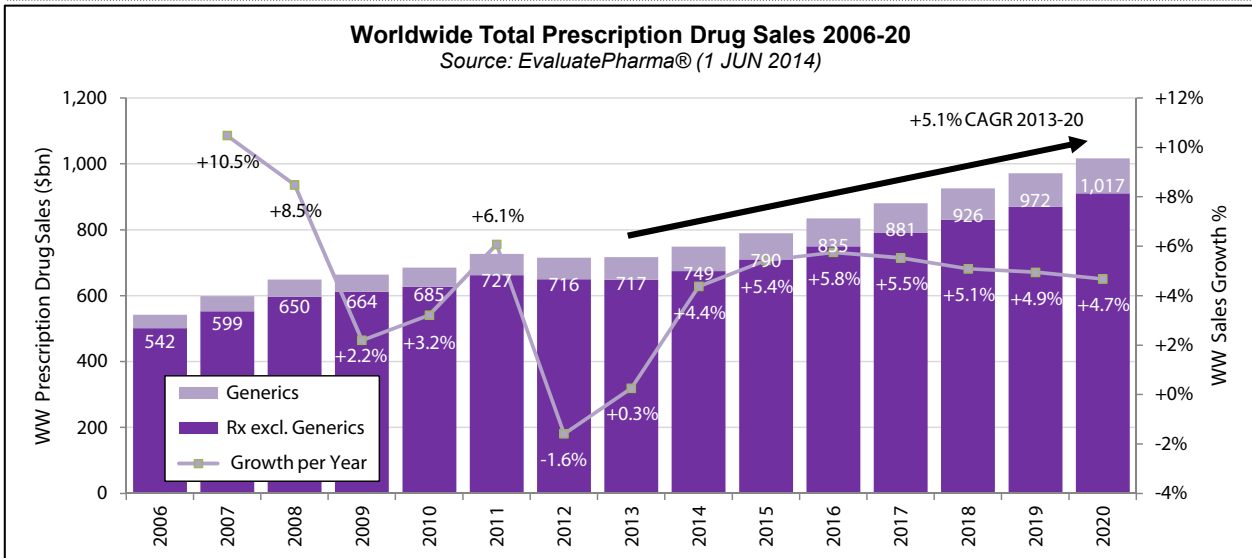
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Worldwide Prescription Drug Sales (2006-20)

More than one trillion dollars of worldwide prescription drug sales expected by 2020

EvaluatePharma® finds that the market for prescription drugs, based on the consensus forecast for the leading 500 pharmaceutical and biotechnology companies, will grow by 5.1% per year (CAGR) to reach \$1,017bn by 2020. Worldwide prescription growth was an uninspiring 0.3% in 2013, close to the 0.4% predicted in the previous edition of the World Preview report. This represents a return to modest growth versus the 1.6% contraction in 2012. The depreciation of the yen against the dollar has negatively impacted Japan's contribution to the worldwide market in 2013 by around \$15bn. Sales at risk from patent expiries will average \$3bn per year to 2020; however, as an increasing proportion of sales are from biological products, the predicted erosion post-expiration is expected to be softer, thus protecting industry growth.



Patent Analysis: 'Total Sales at Risk' represents the worldwide product sales in the year prior to patent expiry but allocated to the year of expiry. E.g. Plavix had sales of \$7.1bn in 2011, this is shown above as 'At Risk' in 2012.

Worldwide Prescription Drug Sales (2006-20)

	WW Prescription Sales (\$bn)															
	Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Prescription (Rx)		542	599	650	664	685	727	716	717	749	790	835	881	926	972	1,017
Growth per Year			+10.5%	+8.5%	+2.2%	+3.2%	+6.1%	-1.6%	+0.3%	+4.4%	+5.4%	+5.8%	+5.5%	+5.1%	+4.9%	+4.7%
Generics		40	46	53	52	59	65	66	69	74	79	85	90	96	101	107
Generics as % of Rx		7.4%	7.7%	8.1%	7.8%	8.5%	8.9%	9.2%	9.6%	9.9%	10.0%	10.2%	10.3%	10.4%	10.4%	10.5%
Rx excl. Generics		502	553	597	612	627	662	650	649	675	710	750	791	830	871	911
Growth per Year			+10.1%	+8.0%	+2.5%	+2.4%	+5.7%	-1.9%	-0.2%	+4.0%	+5.3%	+5.6%	+5.4%	+5.0%	+4.9%	+4.6%

Source: EvaluatePharma® (1 JUN 2014)

Prescription (Rx) incl. Generics CAGR 13-20 +5.1%

Note: Industry sales based on Top 500 pharmaceutical and biotech companies.

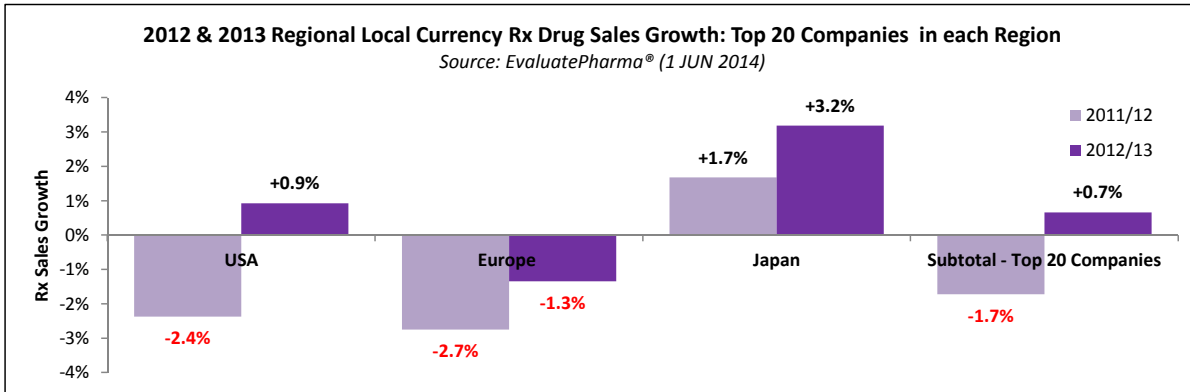
Sales to 2013 based on company reported sales data. Sales forecasts to 2020 based on a consensus of leading equity analysts' estimates for company product sales and segmental sales.

*Pandemic Flu products include vaccines and influenza treatments Tamiflu and Relenza.



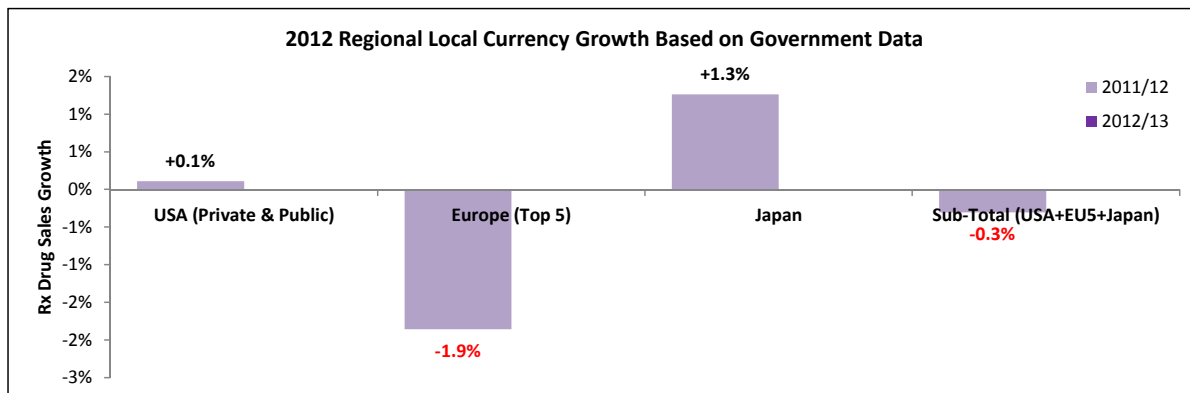
Regional Prescription Drug Sales: USA, Europe & Japan (2011-13)

Key prescription drug sales in 2013 up slightly by 0.7%; Japan up 3.2% in yen, masks 15% slump in dollar terms
 EvaluatePharma® finds that collective sales from the developed markets of US, Europe and Japan increased by a mere 0.7%, based on local currency growth. In terms of local currency, Japan was the strongest performing major market, growing 3.2% in 2013; however, due to depreciation of the yen, the translated US dollar value declined 15%.



Regional Prescription Drug Sales (2011-13): Observed Top 20 Companies in each Market

Region	Sales (\$bn)			Growth			
	2011	2012	2013	(US\$)		(local currency)	
USA	211.2	206.2	208.1	-2.4%	+0.9%	-2.4%	+0.9%
Europe	137.9	124.2	126.3	-10.0%	+1.7%	-2.7%	-1.3%
Japan	77.6	76.9	65.4	-0.9%	-15.0%	+1.7%	+3.2%
Subtotal - Top 20 Companies	426.8	407.3	399.8	-4.6%	-1.8%	-1.7%	+0.7%
Unallocated	300.3	308.3	317.6				
Total Worldwide Rx Sales	727.1	715.6	717.5	-1.6%	+0.3%		
Swine Flu Contribution*	1.7	1.9	2.0				
Total Excluding Swine Flu	725.4	713.7	715.5	-1.6%	+0.3%		



Reported Government Data for Prescription Drug Sales in USA, EU (Top 5 Countries) & Japan

Country	Country Drug Expenditures 2011 & 2012 only			Growth (US\$)		Growth LC	
	2011	2012	2013	2011/12	2012/13	2011/12	2012/13
USA (Private & Public)	263.0	263.3	n/a	+0.1%	n/a	+0.1%	n/a
Europe (Top 5)	147.3	134.5	n/a	-8.6%	n/a	-1.9%	n/a
Japan	76.6	84.1	n/a	+9.8%	n/a	+1.3%	n/a
Sub-Total (USA+EU5+Japan)	486.8	481.9	n/a	-1.0%	n/a	-0.3%	n/a
Other	240.3	233.6					
Total Worldwide Rx Sales	727.1	715.6	717.5	-1.6%	+0.3%		

Currency Sensitivity Analysis

Europe Top 5: Germany, France, UK, Italy & Spain.

Currency (ending December)	2011	2012	2013	2011/12	2012/13
Euro (1€ = US \$)	1.39	1.29	1.33	-7.6%	+3.3%
Japan (100 ¥ = US \$)	1.26	1.25	1.03	-0.2%	-18.1%
China (1 RMB = US \$)	0.15	0.16	0.16	+2.4%	+2.6%

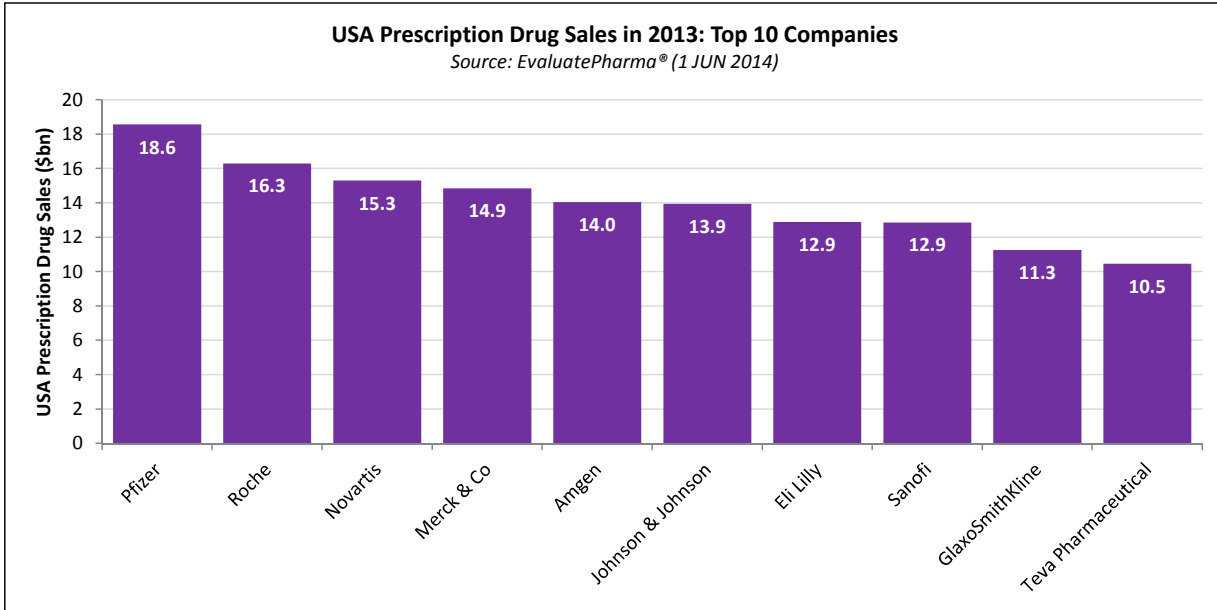
Analysis is based on observing the reported geographic sales from US, Europe and Japan for the top 20 companies in each market in 2013. In addition, available reported government data on pharmaceutical purchases was reviewed.



Regional Prescription Drug Sales: USA (2011-13)

US prescription drug market returns to growth

EvaluatePharma® finds that the US prescription drug market increased 0.9% between 2012 and 2013, based on prescription drug sales for the top 20 companies; however, total sales of \$208.1bn in 2013 are still below the figure of \$211.2bn recorded in 2011. Pfizer remains in the top position in terms of US prescription drugs sales despite a decline of 5.8% to \$18.6bn in 2013 (vs. \$19.7bn in 2012).



USA Prescription Drug Sales (2011-13): Top 20 Companies (Pro-forma adjusted for M&A)

Company	US Rx Sales (\$bn)			Growth (US\$)	
	2011	2012	2013	2011/12	2012/13
1 Pfizer	23.8	19.7	18.6	-17.3%	-5.8%
2 Roche	13.8	14.8	16.3	+6.9%	+10.2%
3 Novartis	15.3	15.3	15.3	-0.1%	+0.1%
4 Merck & Co	17.1	17.0	14.9	-0.4%	-12.8%
5 Amgen	11.5	12.8	14.0	+11.6%	+9.6%
6 Johnson & Johnson	12.4	12.4	13.9	+0.3%	+12.3%
7 Eli Lilly	13.0	12.3	12.9	-5.1%	+4.7%
8 Sanofi	13.6	12.8	12.9	-5.2%	+0.1%
9 GlaxoSmithKline	11.4	11.1	11.3	-2.5%	+1.5%
10 Teva Pharmaceutical	10.5	10.4	10.5	-0.8%	+0.2%
11 AbbVie	9.7	10.4	10.2	+7.4%	-2.4%
12 AstraZeneca	13.1	10.6	9.7	-19.2%	-8.6%
13 Bristol-Myers Squibb	14.7	10.4	8.3	-29.2%	-19.9%
14 Actavis	5.9	6.9	7.3	+18.3%	+5.3%
15 Novo Nordisk	5.0	5.9	7.0	+19.0%	+17.6%
16 Boehringer Ingelheim	6.7	7.1	6.9	+6.4%	-4.0%
17 Gilead Sciences	4.6	5.6	6.7	+21.3%	+19.7%
18 Mylan	3.2	3.9	3.9	+20.6%	+0.7%
19 Celgene	2.9	3.2	3.9	+10.8%	+21.9%
20 Allergan	3.1	3.4	3.8	+9.5%	+13.6%
Total	211.2	206.2	208.1	-2.4%	+0.9%

Country Level Retail Expenditures on Prescription Drug Sales

Country	Sales (\$bn)			Growth (US\$)
	2011	2012	2013	2011/12
USA ¹	263.0	263.3	n/a	+0.1%

1: Source: USA (CMS Household Survey)

Analysis is based on observing the reported geographical prescription drug sales in the US for the top 20 companies in 2013. In addition, available government data on pharmaceutical purchases of drugs was reviewed.



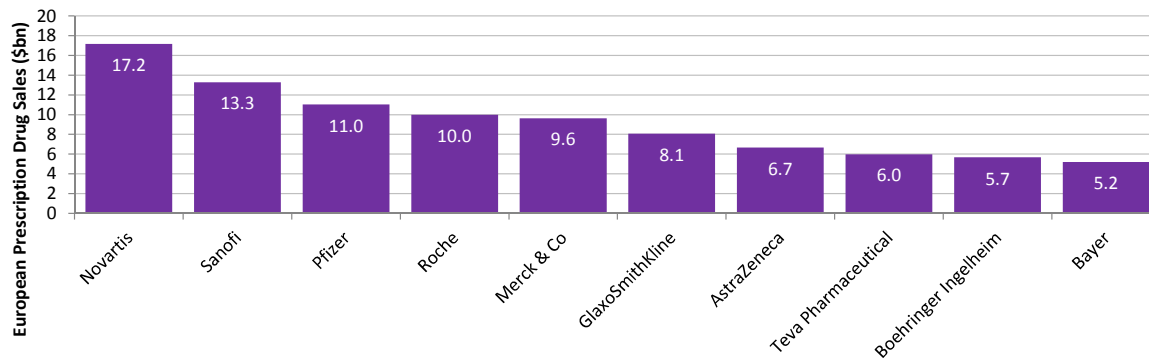
Regional Prescription Drug Sales: Europe (2011-13)

Sales in Europe fall for the second consecutive year; Novartis remains number one in Europe

EvaluatePharma® finds that European drug sales fell 1.3% in local currency although, due to appreciation of the euro, sales increased 1.7% when expressed in terms of US dollars. Novartis remains the biggest player in Europe with sales of \$17.2bn in 2013.

European Prescription Drug Sales in 2013: Top 10 Companies

Source: EvaluatePharma® (1 JUN 2014)



Europe Prescription Drug Sales (2011-13): Top 20 Companies

Company	EU Rx Sales (\$bn)			Growth (US\$)		EU Rx Sales (€bn)			Growth (€)	
	2011	2012	2013	2011/12	2012/13	2011	2012	2013	2011/12	2012/13
1 Novartis	17.6	16.0	17.2	-9.3%	+7.3%	12.7	12.4	12.9	-1.8%	+3.8%
2 Sanofi	16.2	13.5	13.3	-16.5%	-1.7%	11.6	10.5	10.0	-9.6%	-4.9%
3 Pfizer	14.2	11.8	11.0	-17.1%	-6.2%	10.2	9.2	8.3	-10.3%	-9.2%
4 Roche	9.3	9.6	10.0	+2.7%	+4.6%	6.7	7.4	7.5	+11.2%	+1.2%
5 Merck & Co	10.6	9.8	9.6	-8.2%	-1.3%	7.6	7.6	7.2	-0.6%	-4.5%
6 GlaxoSmithKline	9.1	7.9	8.1	-13.4%	+2.1%	6.6	6.2	6.1	-6.2%	-1.2%
7 AstraZeneca	9.7	7.7	6.7	-21.5%	-13.0%	7.0	6.0	5.0	-15.0%	-15.8%
8 Teva Pharmaceutical	6.3	5.8	6.0	-8.2%	+3.3%	4.5	4.5	4.5	-0.6%	-0.0%
9 Boehringer Ingelheim	5.6	5.4	5.7	-4.0%	+5.1%	4.0	4.2	4.3	+3.9%	+1.7%
10 Bayer	5.1	4.7	5.2	-7.1%	+10.1%	3.7	3.7	3.9	+0.5%	+6.6%
11 Eli Lilly	5.3	4.3	4.3	-19.5%	+1.8%	3.8	3.3	3.3	-12.8%	-1.4%
12 Menarini	4.2	4.1	4.2	-2.0%	+1.7%	3.0	3.2	3.2	+6.1%	-1.6%
13 Bristol-Myers Squibb	3.9	3.7	3.9	-4.5%	+6.0%	2.8	2.9	3.0	+3.4%	+2.6%
14 AbbVie	3.6	3.5	3.9	-2.7%	+9.8%	3.6	3.5	3.9	-2.7%	+9.8%
15 Amgen	3.6	3.6	3.9	-0.4%	+8.4%	2.6	2.8	2.9	+7.8%	+4.9%
16 Gilead Sciences	3.1	3.3	3.6	+6.7%	+8.4%	2.2	2.6	2.7	+15.5%	+4.9%
17 Novo Nordisk	3.6	3.4	3.6	-4.9%	+5.0%	2.6	2.6	2.7	+2.9%	+1.6%
18 Merck KGaA	3.5	3.2	3.3	-9.2%	+2.5%	2.5	2.5	2.5	-1.7%	-0.8%
19 Takeda	3.3	3.0	3.0	-8.8%	-0.4%	2.3	2.3	2.2	-1.2%	-3.6%
20 Johnson & Johnson	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total*	137.9	124.2	126.3	-10.0%	+1.7%	100.1	97.4	96.1	-2.7%	-1.3%

Currency Impact (\$bn) at 2011 rates: -11.4, -7.4

Country Level Expenditures on Prescription Drugs (Government Disclosed)

Country	Gov Purchases (\$bn)			Growth (US\$)		Gov Purchases (€; €bn)			Growth (LC)	
	2011	2012	2013	2011/12	2012/13	2011	2012	2013	2011/12	2012/13
Germany (€)	46.7	43.7		-6.3%		33.5	34.0		+1.5%	
France (€)	38.4	35.0		-9.0%		27.6	27.2		-1.4%	
Italy (€)	25.6	22.2		-13.5%		18.4	17.3		-6.3%	
UK (£)	21.0	21.1		+0.2%		13.1	13.3		+1.5%	
Spain (€)	15.5	12.6	12.2	-19.0%	-2.9%	11.1	9.8	9.2	-12.3%	-6.0%
Top 5 EU Countries	147.3	134.5		-8.6%					-1.9%	

Currency Impact (\$bn) at 2011 rates: -9.6

Currency Rate	2011	2012	2013	2011/12	2012/13
1€ = US \$	1.39	1.29	1.33	-8%	+3%
1£ = US \$	1.60	1.58	1.56	-1%	-1%

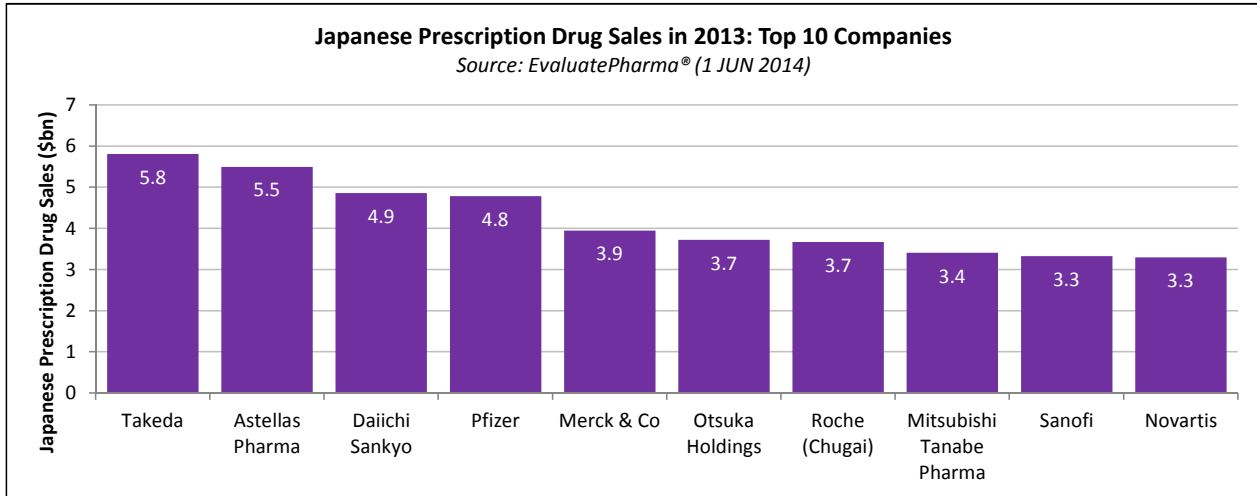
Note: Johnson & Johnson does not disclose European pharmaceutical sales. Menarini 2013 sales figure is an estimate of total revenue. Novartis's sales based on actual and estimated segment sales.

Analysis is based on observing the reported geographic sales for the top 20 companies in Europe in 2013. In addition, available reported government data on pharmaceutical purchases for 2012 and 2013 was reviewed.



Regional Prescription Drug Sales: Japan (2011-13)

Japanese market contracts 15% in dollar-terms due to depreciation of the yen; Takeda remains number one
 EvaluatePharma® finds that Japanese prescription drug sales, in yen, grew 3.2% in 2013; however, due to significant depreciation of the yen, sales declined 15% when expressed in terms of US dollars.



Japan Prescription Drug Sales (2011-13): Top 20 Companies

Company	Japan Rx Sales (\$bn)			Growth (\$)		Japan Rx Sales (¥bn)			Growth (¥)	
	2011	2012	2013	2011/12	2012/13	2011	2012	2013	2011/12	2012/13
1 Takeda	7.5	7.1	5.8	-5.2%	-18.3%	593	591	582	-0.3%	-1.4%
2 Astellas Pharma	7.1	6.7	5.5	-4.7%	-18.5%	559	560	551	+0.2%	-1.6%
3 Daiichi Sankyo	5.2	5.4	4.9	+3.1%	-9.2%	410	445	487	+8.4%	+9.5%
4 Pfizer	5.2	5.1	4.8	-1.5%	-6.5%	414	409	467	-1.3%	+14.2%
5 Merck & Co	4.7	5.0	3.9	+5.7%	-20.7%	375	397	385	+5.9%	-3.1%
6 Otsuka Holdings	4.1	4.3	3.7	+2.9%	-12.5%	327	353	373	+8.2%	+5.6%
7 Roche (Chugai)	4.3	4.4	3.7	+1.5%	-16.1%	344	350	358	+1.8%	+2.5%
8 Mitsubishi Tanabe Pharma	4.5	4.3	3.4	-4.2%	-20.9%	356	358	342	+0.7%	-4.6%
9 Sanofi	4.0	4.2	3.3	+5.6%	-20.9%	318	336	325	+5.8%	-3.3%
10 Novartis	3.9	4.0	3.3	+2.6%	-17.5%	311	319	322	+2.8%	+0.8%
11 Eisai	4.4	3.7	3.1	-14.8%	-16.7%	345	309	311	-10.4%	+0.5%
12 Bayer	2.6	2.8	2.9	+7.4%	+6.0%	205	221	286	+7.7%	+29.5%
13 Kyowa Hakko Kirin	2.9	3.1	2.6	+8.0%	-16.9%	231	250	254	+8.2%	+1.5%
14 GlaxoSmithKline	3.3	3.1	2.6	-6.6%	-16.9%	266	249	253	-6.4%	+1.6%
15 AstraZeneca	3.1	2.9	2.5	-5.2%	-14.4%	244	232	242	-5.0%	+4.5%
16 Boehringer Ingelheim	2.5	2.7	2.4	+6.5%	-10.4%	203	217	237	+6.7%	+9.4%
17 Eli Lilly	2.1	2.2	2.1	+6.8%	-8.1%	168	179	201	+7.0%	+12.3%
18 Dainippon Sumitomo Pharma	2.3	2.1	1.7	-7.4%	-18.7%	180	175	172	-2.6%	-1.9%
19 Shionogi	2.1	2.0	1.7	-3.8%	-16.2%	164	166	168	+1.2%	+1.1%
20 Ono Pharmaceutical	1.8	1.7	1.4	-6.5%	-17.2%	146	143	143	-1.6%	-0.1%
Total	77.6	76.9	65.4	-0.9%	-15.0%	6,157	6,260	6,459	+1.7%	+3.2%

Currency Impact (\$bn) at 2011 rates: -2.3 -16.4

Government Purchases

Country	Gov Purchases (\$bn)			Growth (US\$)		Gov Purchases (¥bn)			Local % Growth	
	2011	2012	2013	2011/12	2012/13	2011	2012	2013	2011/12	2012/13
Japan	76.6	84.1		+9.8%		6,560	6,643		+1.3%	

Currency Rate (Ending 31 March)	2011	2012	2013	2014	June					
Fiscal year	2010	2011	2012	2013	2014	2010/11	2011/12	2012/13	2013/14	
1 ¥ = \$	0.0117	0.0127	0.0120	0.0100	0.0097	+8%	-5%	-17%	-2%	
1 \$ = ¥	85.7	79.0	83.0	100.2	102.7					

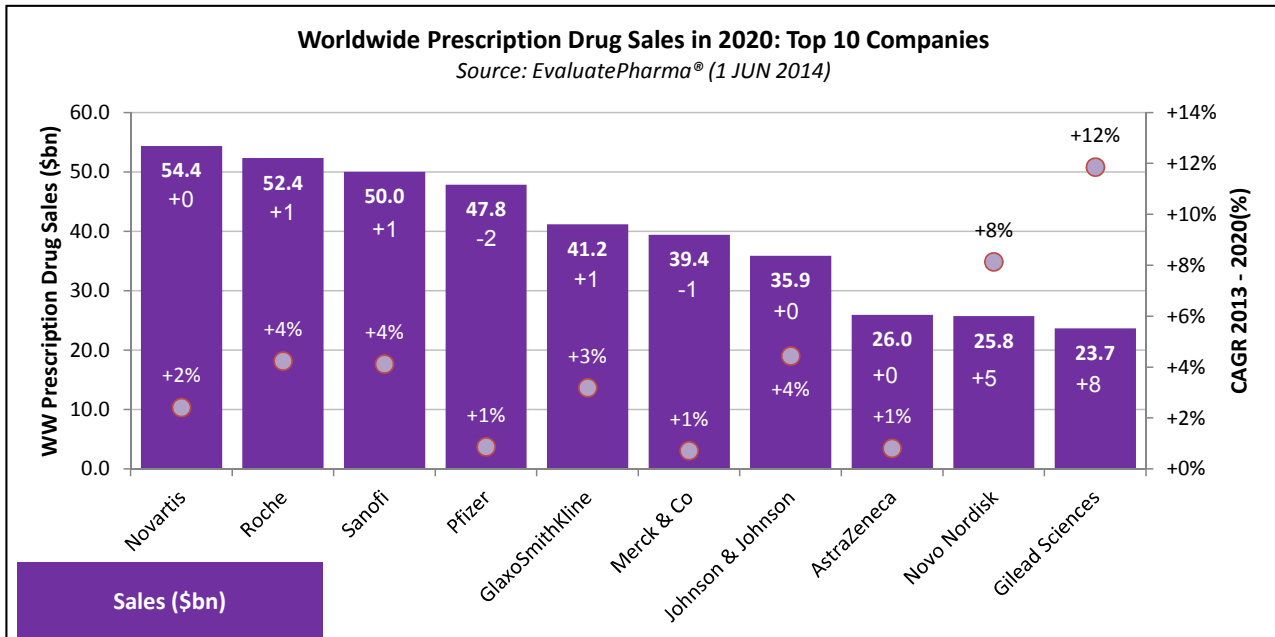
NOV 2012: Yen depreciation due to change in monetary policy after Shinzo Abe elected Prime Minister. Analysis is based on observing the reported geographical prescription drug sales in the US for the top 20 companies in 2013. In addition, available government data on pharmaceutical purchases of drugs was reviewed.



Worldwide Prescription Drug Sales in 2020: Top 20 Companies

Novartis forecast to achieve highest worldwide sales of prescription drugs in 2020

EvaluatePharma® finds that Novartis remains the number one pharmaceutical company through to 2020 with total prescription drug sales of \$54.4bn, representing a 5.3% share of the entire world market. A strong HIV franchise and impressive forecasts for recently approved hepatitis C treatment, Sovaldi, is expected to secure Gilead a place in the top ten by 2020 with total sales of \$23.7bn. In the absence of any future acquisitions, Pfizer is forecast to fall to the number four position by 2020 with total sales of \$47.8bn accounting for 4.7% of the entire prescription drug market. Biogen Idec surges into the top 20, rising eight places, due to the strength of its new oral MS treatment Tecfidera.



Worldwide Prescription Drug Sales (2013 - 2020): Top 20 Companies & Total Market

Company	WW Rx Sales (\$bn)			WW Market Share			Rank Chg. (+/-)
	2013	2020	CAGR	2013	2020	Chg. (+/-)	
1 Novartis	46.0	54.4	+2%	6.4%	5.3%	-1.1pp	+0
2 Roche	39.1	52.4	+4%	5.5%	5.1%	-0.3pp	+1
3 Sanofi	37.7	50.0	+4%	5.3%	4.9%	-0.3pp	+1
4 Pfizer	45.0	47.8	+1%	6.3%	4.7%	-1.6pp	-2
5 GlaxoSmithKline	33.1	41.2	+3%	4.6%	4.1%	-0.6pp	+1
6 Merck & Co	37.5	39.4	+1%	5.2%	3.9%	-1.4pp	-1
7 Johnson & Johnson	26.5	35.9	+4%	3.7%	3.5%	-0.2pp	+0
8 AstraZeneca	24.5	26.0	+1%	3.4%	2.6%	-0.9pp	+0
9 Novo Nordisk	14.9	25.8	+8%	2.1%	2.5%	+0.5pp	+5
10 Gilead Sciences	10.8	23.7	+12%	1.5%	2.3%	+0.8pp	+8
11 AbbVie	18.8	23.2	+3%	2.6%	2.3%	-0.3pp	-1
12 Bayer	15.6	22.4	+5%	2.2%	2.2%	+0.0pp	+1
13 Bristol-Myers Squibb	12.3	21.6	+8%	1.7%	2.1%	+0.4pp	+4
14 Amgen	18.2	20.9	+2%	2.5%	2.1%	-0.5pp	-3
15 Takeda	13.4	18.4	+5%	1.9%	1.8%	-0.1pp	+1
16 Eli Lilly	20.1	18.1	-2%	2.8%	1.8%	-1.0pp	-7
17 Boehringer Ingelheim	14.5	15.6	+1%	2.0%	1.5%	-0.5pp	-2
18 Teva Pharmaceutical Industries	17.6	15.2	-2%	2.4%	1.5%	-1.0pp	-6
19 Astellas Pharma	10.3	14.5	+5%	1.4%	1.4%	-0.0pp	+0
20 Biogen Idec	5.4	13.0	+13%	0.8%	1.3%	+0.5pp	+8
Total Top 20	461.3	579.5	+3%	64.3%	57.0%	-7.3pp	
Other	256.2	437.9	+8%	35.7%	43.0%		
Total	717.5	1,017.4	+5%	100.0%	100.0%		

Source: EvaluatePharma® (1 JUN 2014)

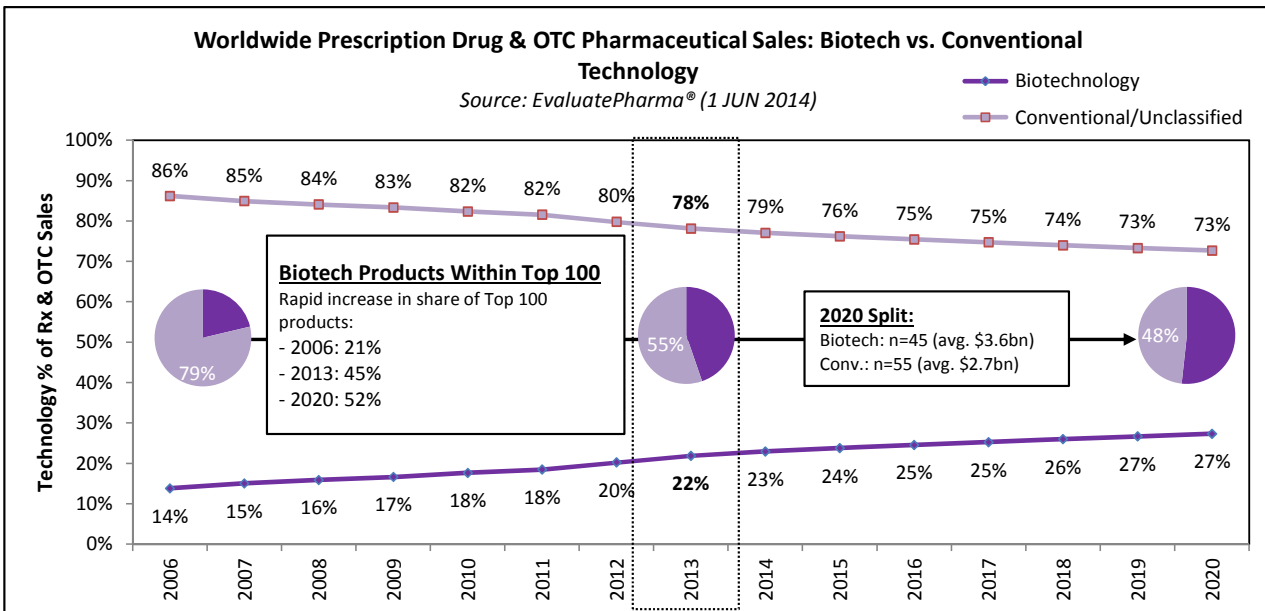
Note: Prescription drug sales include generic drug sales. Excludes alliance revenue and royalties where possible.



Worldwide Prescription Drug & OTC Sales by Technology (2006-20)

Biological drugs largest component (52%) of the top 100 in 2020

EvaluatePharma® finds that the percentage of sales from biotechnology products (bioengineered vaccines & biologics), within the world's top 100, is set to increase from 45% to 52% in 2020. In the broader market, sales from biotechnology products are expected to account for 27% of the world's pharmaceutical sales by 2020, versus the current share of 22% in 2013. Roche is expected to remain the biggest player in the biotechnology space with sales increasing by \$14.5bn to \$43.5bn in 2020, representing an annual growth of 6% per annum. Bristol-Myers Squibb is forecast to show the strongest growth of 21% per year, largely due to its investigational anti-programmed death-1 (PD-1) monoclonal antibody Nivolumab.



Worldwide Prescription Drug & OTC Sales by Technology (2006-2020)

Technology	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Biotechnology	14%	15%	16%	17%	18%	18%	20%	22%	23%	24%	25%	25%	26%	27%	27%
Conventional/Unclassified	86%	85%	84%	83%	82%	82%	80%	78%	77%	76%	75%	75%	74%	73%	73%
Total Rx & OTC Sales	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

WW Sales (\$bn)

Technology	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Biotechnology	79	94	108	116	127	141	152	165	181	197	215	233	252	272	291
Conventional	372	399	423	435	443	463	439	429	435	449	467	484	500	516	532
Other Unclassified Sales	118	134	150	146	150	161	161	160	171	183	193	206	217	230	242
Total Rx & OTC Sales	568	627	681	696	720	764	752	754	787	829	876	924	970	1018	1065

Source: EvaluatePharma® (1 JUN 2014)

Worldwide Prescription Drug Sales from Biotechnology in 2020: Top 10 Companies

Company	WW Sales (\$bn)			WW Market Share		Chg. (+/-)	Rank Chg.
	2013	2020	% CAGR 13-20	2013	2020		
1 Roche	29.0	43.5	+6%	17.6%	15.0%	-2.6pp	+0
2 Sanofi	14.5	26.1	+9%	8.8%	9.0%	+0.2pp	+1
3 Novo Nordisk	14.0	24.7	+8%	8.5%	8.5%	+0.0pp	+1
4 Amgen	16.8	18.0	+1%	10.2%	6.2%	-4.0pp	-2
5 Pfizer	10.2	17.2	+8%	6.2%	5.9%	-0.3pp	+1
6 Merck & Co	7.9	13.8	+8%	4.8%	4.7%	-0.1pp	+2
7 AbbVie	11.5	13.7	+3%	7.0%	4.7%	-2.3pp	-2
8 Johnson & Johnson	9.5	13.6	+5%	5.7%	4.7%	-1.1pp	-1
9 Bristol-Myers Squibb	3.1	11.9	+21%	1.9%	4.1%	+2.2pp	+6
10 Eli Lilly	5.7	11.5	+11%	3.4%	4.0%	+0.5pp	-1

Note: Company drug sales from undisclosed products are presumed to be from conventional (small molecule) technology.



Top 20 Most Valuable R&D Projects (Ranked by Net Present Value)

Value of industry's R&D pipeline surges to \$419bn; Bristol-Myers Squibb's Nivolumab most valuable pipeline product
 EvaluatePharma's NPV Analyzer finds the total value (NPV) of the industry's R&D pipeline has surged 46%, to \$419bn. The main driver of growth is an exciting new class of cancer products targeting the programmed death-1 (PD-1) pathway with a collective value of \$63bn. Bristol-Myers's potential new anti-PD-1, Nivolumab is the world's most valuable R&D product valued at \$23.2bn, followed by two other potential anti-PD-1 products: Merck's MK-3475 (pembrolizumab) and Roche's RG7446, valued at \$16.7bn and \$15.6bn, respectively. Eight of last year's top 20 have since been approved and have collectively seen their NPVs increase 57% since June 2013, releasing \$74.8bn of value from the industry's pipeline. Gilead's Sovaldi continues to impress investors, with its value increasing 33% to \$37.9bn over the year.

Top 20 Most Valuable R&D Projects (Ranked by Net Present Value)

Rank	Product	Company	Phase (Current)	Pharmacological Class	WW Product Sales (\$m)		Today's NPV (\$m)
					2012	2013	
1	Nivolumab	Bristol-Myers Squibb	Phase III	Anti-programmed death-1 (PD-1) MAb	6,012		23,150
2	MK-3475	Merck & Co	Filed	Anti-programmed death-1 (PD-1) MAb	4,063	new entry	16,747
3	RG7446	Roche	Phase III	Anti-programmed death-1 ligand-1 (PD-L1) MAb	2,937	new entry	15,639
4	Obeticholic acid	Intercept Pharmaceuticals	Phase III	Farnesoid X receptor (FXR) agonist	2,992	new entry	11,426
5	Ledipasvir/Sofosbuvir	Gilead Sciences	Filed	Hepatitis C nucleoside NS5A & NS5B polymerase inhibitor	2,818		9,876
6	Palbociclib	Pfizer	Phase III	Cyclin-dependent kinase (CDK) 4 & 6 inhibitor	2,950		7,925
7	DCVax-L	Northwest Biotherapeutics	Phase III	Cancer vaccine	2,046	new entry	5,502
8	VX-809 + ivacaftor	Vertex Pharmaceuticals	Phase III	Cystic fibrosis transmembrane conductance regulator (CFTR) corrector	1,900		5,011
9	MEDI4736	AstraZeneca	Phase III	Anti-programmed death-1 ligand-1 (PD-L1) MAb	967	new entry	4,711
10	Lampalizumab	Roche	Phase II	Anti-complement factor D MAb	1,122	new entry	4,520
11	Revascor	Mesoblast	Phase III	Mesenchymal stem cell	-	new entry	4,332
12	Idelalisib	Gilead Sciences	Filed	Phosphatidylinositol 3-kinase (PI3K) inhibitor	1,273	new entry	3,615
13	Evolocumab	Amgen	Phase III	Anti-protein convertase subtilisin-like kexin type 9 (PCSK9) MAb	1,093	new entry	3,563
14	LCZ696	Novartis	Phase III	AT1 receptor-nephrilysin (ARNI) inhibitor	1,329	new entry	3,005
15	Nivolumab	Ono Pharmaceutical	Filed	Anti-programmed death-1 (PD-1) MAb	348		2,996
16	Alirocumab	Sanofi	Phase III	Anti-protein convertase subtilisin-like kexin type 9 (PCSK9) MAb	1,048		2,950
17	Plegridy	Biogen Idec	Filed	Interferon beta	1,047	new entry	2,931
18	Abemaciclib	Eli Lilly	Phase III	Cyclin-dependent kinase (CDK) 4 & 6 inhibitor	651	new entry	2,922
19	Ocrelizumab	Roche	Phase III	Anti-CD20 MAb	894	new entry	2,777
20	Secukinumab	Novartis	Filed	Anti-interleukin-17 (IL-17) MAb	1,030	new entry	2,735
Top 20					36,520		136,332
Other					111,649		282,192
Total					148,169		418,525 46%

Source: EvaluatePharma® (1 JUN 2014)

NPV of R&D Pipeline June 2013: 286,367

Most Valuable R&D Projects (Ranked by NPV) in June 2013 Which Have Since Been Approved or Suffered Setbacks

Change vs. Jun '13	Product	Company	Status (June 2013)	Status Change Since June 2013	June 2013 NPV (\$m)	Today's NPV (\$m)	Change vs. Jun 13 (%)
Approved	Sovaldi	Gilead Sciences	Filed	Marketed	28,566	37,852	33%
	Cyramza	Eli Lilly	Filed	Marketed	4,232	3,114	-26%
	Imbruvica	Pharmacyclics	Phase III	Marketed	4,040	12,783	216%
	Tivicay	GlaxoSmithKline	Filed	Marketed	2,473	6,389	158%
	Opsumit	Actelion	Filed	Marketed	2,421	2,723	12%
	Otezla	Celgene	Filed	Marketed	2,018	4,251	111%
	Adempas	Bayer	Filed	Marketed	1,950	963	-51%
	Anoro Ellipta	GlaxoSmithKline	Filed	Marketed	1,941	6,687	245%
Sub-Total					47,640	74,763	57%
Setback					0	0	nm
	Sub-Total					0	0
Total					47,640	74,763	57%

Source: EvaluatePharma® (1 JUN 2014)

Note: Nivolumab: Bristol-Myers Squibb has rights WW ex Japan, Korea & Taiwan; Ono has rights in Japan, Korea & Taiwan

* Revascor: Mesoblast expected to receive royalties

* Ocrelizumab: Co-promotion and profit-share with Biogen Idec

* DCVax-L, Obeticholic acid & Revascor assumed to be forecast on "best-case" basis and not fully adjusted for development risk.

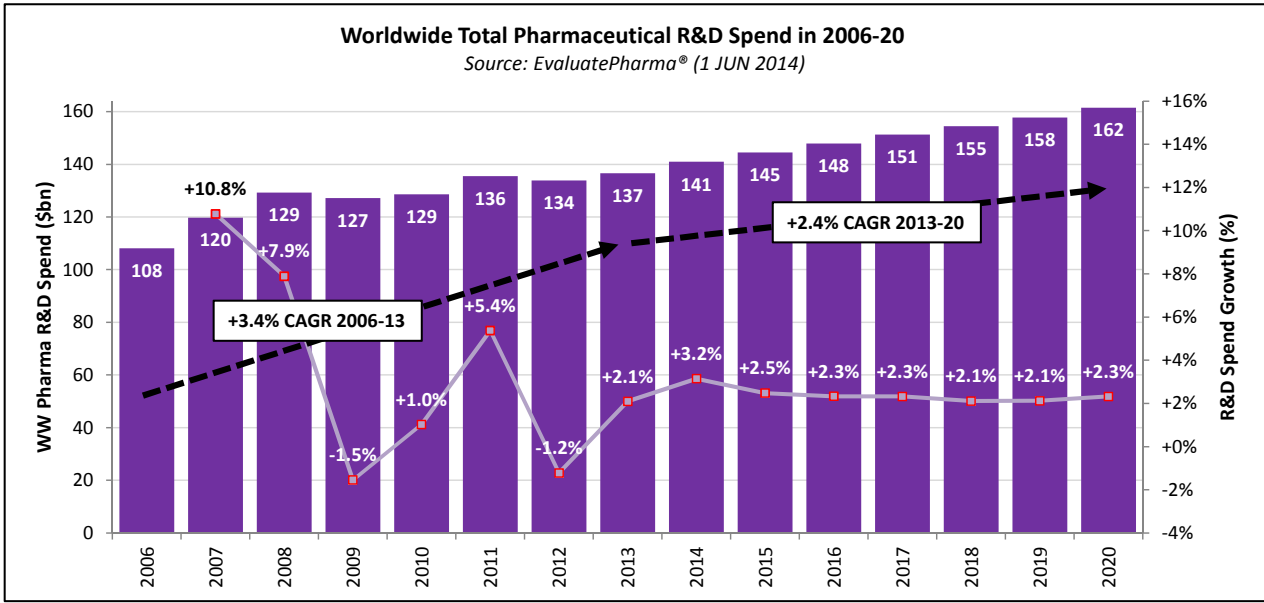
* None of the top R&D projects listed June 2013 have suffered a setback over the past twelve months



Worldwide R&D Spend by Pharma & Biotech Companies (2006-20)

Worldwide pharmaceutical R&D spend to grow by 2.4% (CAGR) to \$162bn in 2020

EvaluatePharma® finds that worldwide pharmaceutical R&D totalled \$137bn in 2013 representing an increase of 2.1% on the previous year when R&D spend, in dollar terms, actually declined. Looking forward, R&D spend is forecast to grow at a rate of 2.4% per year, which contrasts with the compound annual growth rate of 3.4% between 2006 and 2013. The spend per NME, based on a three-year lag period between R&D expenditure and NME approval*, returned to the level of 2011, or \$3.7bn per NME. Over the past ten years, the pharmaceutical industry invested over \$1.2 trillion in R&D.



Worldwide R&D Spend by Pharma & Biotech Companies (2006-20)

	WW Prescription Sales (\$bn)															
	Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Pharma R&D Spend		108.1	119.8	129.3	127.3	128.6	135.5	133.9	136.7	141.0	144.5	147.9	151.3	154.6	157.8	161.5
Growth per Year			+10.8%	+7.9%	-1.5%	+1.0%	+5.4%	-1.2%	+2.1%	+3.2%	+2.5%	+2.3%	+2.3%	+2.1%	+2.1%	+2.3%
WW Prescription (Rx) Sales		542	599	650	664	685	727	716	717	749	790	835	881	926	972	1,017
R&D as % of WW Rx Sales		19.9%	20.0%	19.9%	19.2%	18.8%	18.6%	18.7%	19.1%	18.8%	18.3%	17.7%	17.2%	16.7%	16.2%	15.9%
Generics		40	46	53	52	59	65	66	69	74	79	85	90	96	101	107
Rx excl. Generics		502	553	597	612	627	662	650	649	675	710	750	791	830	871	911
R&D as % of Rx excl. Generics		21.5%	21.7%	21.7%	20.8%	20.5%	20.5%	20.6%	21.1%	20.9%	20.3%	19.7%	19.1%	18.6%	18.1%	17.7%

Source: EvaluatePharma® (1 JUN 2014)

CAGR 13-20 on Pharma R&D Spend +2.4%
Cumulative 10 year R&D Spend (2004-13) 1203.5 bn

	Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Number of NMEs		38	28	29	26	31	34	26	35	43	35
Spend per NME (\$bn)		2.3	3.4	3.7	4.6	4.2	3.7	4.9	3.9	3.1	3.9
Spend per NME (\$bn) (3 year lag)*					3.4	3.1	3.2	4.6	3.7	3.0	3.7

Note: Industry sales based on Top 500 pharmaceutical and biotech companies.

Forecast pharmaceutical research and development spend based on a consensus of leading equity analysts' estimates for company level R&D spend, extrapolated to pharmaceutical R&D when a company has non-pharmaceutical R&D activity.

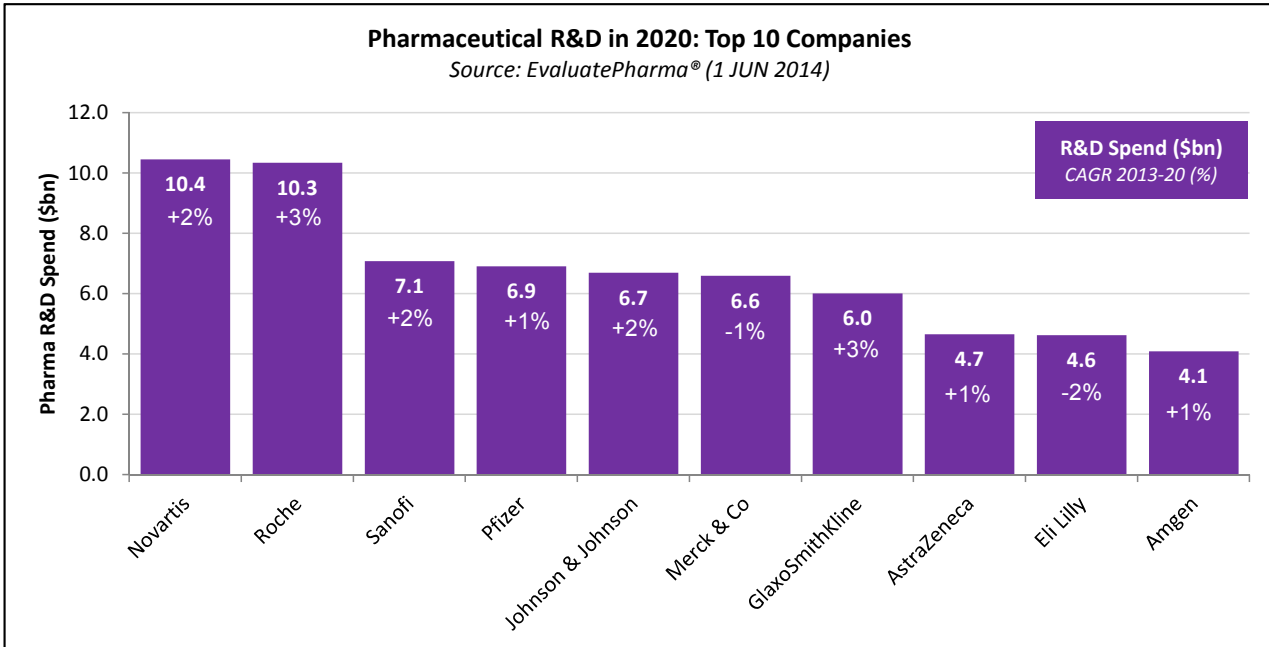
*Spend per NME (\$bn) (3 year lag) uses the R&D expense for 3 years prior to the NME approval instead of the same year. e.g. the 2013 figure of \$3.7bn is the R&D expense in 2010 divided by the number of NMEs in 2013.



Pharmaceutical R&D Spend in 2020: Top 20 Companies

Novartis remains the biggest spender on pharmaceutical R&D in 2020

EvaluatePharma®'s consensus forecast finds Novartis will continue to spend the most on research and development in 2020, with a spend of \$10.4bn in 2020. Of the top 20, Biogen Idec is forecast to grow its R&D expense the most rapidly, with R&D forecast to increase 10% per year from \$1.4bn to \$2.8bn in 2020. Overall, total R&D spend is expected to increase by 2.4% each year, reaching \$161.5bn in 2020.



Pharmaceutical R&D Spend (2013 & 2020): Top 20 Companies & Total Market

Company	Pharma R&D (\$bn)			R&D As a % of Rx Sales		
	2013	2020	CAGR 13-20	2013	2020	Chg. (+/-)
1 Novartis	9.4	10.4	+2%	20.3%	19.5%	-0.8pp
2 Roche	8.3	10.3	+3%	21.2%	19.7%	-1.4pp
3 Sanofi	6.1	7.1	+2%	16.2%	14.1%	-2.1pp
4 Pfizer	6.6	6.9	+1%	14.6%	14.4%	-0.1pp
5 Johnson & Johnson	5.8	6.7	+2%	21.9%	18.6%	-3.3pp
6 Merck & Co	7.1	6.6	-1%	19.0%	16.7%	-2.3pp
7 GlaxoSmithKline	5.0	6.0	+3%	15.3%	14.6%	-0.7pp
8 AstraZeneca	4.3	4.7	+1%	17.4%	17.9%	+0.5pp
9 Eli Lilly	5.3	4.6	-2%	26.4%	25.6%	-0.8pp
10 Amgen	3.9	4.1	+1%	21.7%	19.6%	-2.1pp
11 Bristol-Myers Squibb	3.7	4.1	+1%	30.2%	18.9%	-11.3pp
12 Bayer	2.7	3.9	+5%	17.4%	17.4%	-0.0pp
13 Boehringer Ingelheim	3.2	3.5	+1%	22.4%	22.5%	+0.0pp
14 AbbVie	2.8	3.5	+3%	15.1%	15.0%	-0.1pp
15 Takeda	3.4	3.4	-0%	25.5%	18.5%	-7.0pp
16 Novo Nordisk	2.1	3.3	+7%	14.0%	12.9%	-1.1pp
17 Gilead Sciences	2.1	3.1	+6%	19.0%	13.0%	-6.1pp
18 Celgene	1.7	3.1	+9%	26.0%	24.9%	-1.1pp
19 Biogen Idec	1.4	2.8	+10%	26.6%	21.6%	-5.0pp
20 Astellas Pharma	1.9	2.7	+5%	18.5%	18.9%	+0.4pp
Total Top 20	86.9	100.8	+2.1%	19.3%	19.3%	-0.0pp
Other	49.8	60.7	+2.9%			
Total	136.7	161.5	+2.4%	19.1%	15.9%	-3.2pp

Source: EvaluatePharma® (1 JUN 2014)

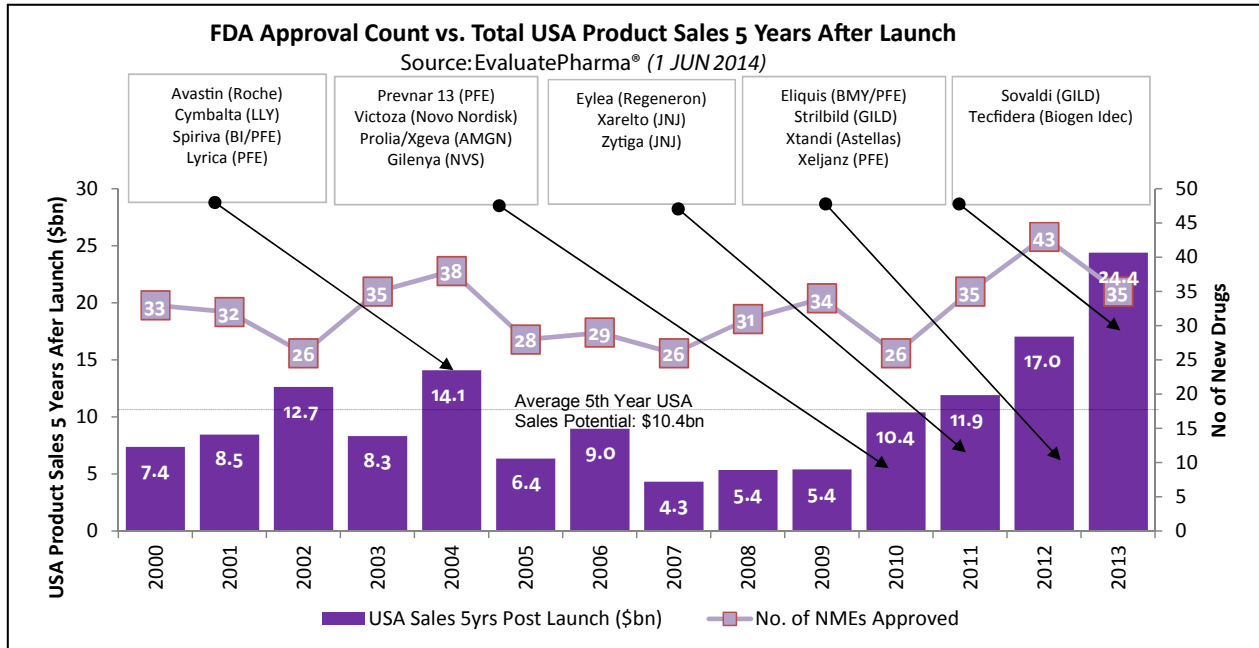
Note: Forecast pharmaceutical R&D spend based on a consensus of leading equity analysts' estimates for company-level R&D spend.



FDA New Drug Approvals: NMEs and Biologicals (2000-13)

Best year ever for drug approvals: sales potential up by 57%

EvaluatePharma® finds that the FDA approved 35 new drugs in 2013 composed of 25 new molecular entities and ten new biologicals. Total USA sales five-years post launch increased 43% to \$24.4bn, or an average \$697m per approval - this was the best year since 1997 and extends the positive performance of last year. Gilead's Sovaldi was the number one approval of 2013, accounting for 20.8% of the total. Nine of the drugs approved in 2013, Sovaldi, Tecfidera, Kadcyla, Tivicay, Anoro Ellipta, Breo Ellipta, Invokana and Pomalyst, are all expected to sell more than \$1bn in the US by 2018.



FDA Approval Count (NMEs & Biologicals) vs. 5th Year after Launch USA Product Sales

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
No. of NMEs Approved	27	24	17	21	31	18	18	16	21	19	15	24	33	25
No. of Biologicals Approved	6	8	9	14	7	10	11	10	10	15	11	11	10	10
Total NMEs + Biologicals	33	32	26	35	38	28	29	26	31	34	26	35	43	35
% Chg.		-3%	-19%	+35%	+9%	-26%	+4%	-10%	+19%	+10%	-24%	+35%	+23%	-19%
USA Sales 5yrs Post Launch \$bn	7.4	8.5	12.7	8.3	14.1	6.4	9.0	4.3	5.4	5.4	10.4	11.9	17.0	24.4
% Chg.		+14%	+50%	-34%	+69%	-55%	+41%	-52%	+23%	+1%	+92%	+15%	+43%	+43%
5yr USA Sales per Approval \$m	224	264	487	238	371	228	310	167	173	159	400	341	396	697
% Chg.		+18%	+84%	-51%	+56%	-39%	+36%	-46%	+3%	-8%	+151%	-15%	+16%	+76%

Top 10 New Molecular Entities in 2013: Ranked on USA Consensus Sales in 2018

Product	Company	Approved	USA Sales	
			2013	2018
1 Sovaldi	Gilead Sciences	Dec 2013	136	5,066
2 Tecfidera	Biogen Idec	Mar 2013	864	3,711
3 Imbruvica	Pharmacyclics	Nov 2013	14	2,154
4 Kadcyla	Roche	Feb 2013	240	1,482
5 Tivicay	GlaxoSmithKline	Aug 2013	30	1,352
6 Anoro Ellipta	GlaxoSmithKline	Dec 2013	-	1,314
7 Breo Ellipta	GlaxoSmithKline	May 2013	8	1,155
8 Invokana	Johnson & Johnson	Mar 2013	130	1,135
9 Pomalyst	Celgene	Feb 2013	246	1,081
10 Brintellix	Takeda	Sep 2013	18	836
Other			225	5,117
Total			1,911	24,403

Source: EvaluatePharma® (1 JUN 2014)

Note: Sales forecasts based on a consensus of leading equity analysts' estimates.

5th year USA sales for products approved up to the end of 2008 are based on actual company reported sales.

Invokana USA sales figure for 2013 is based on consensus estimate.

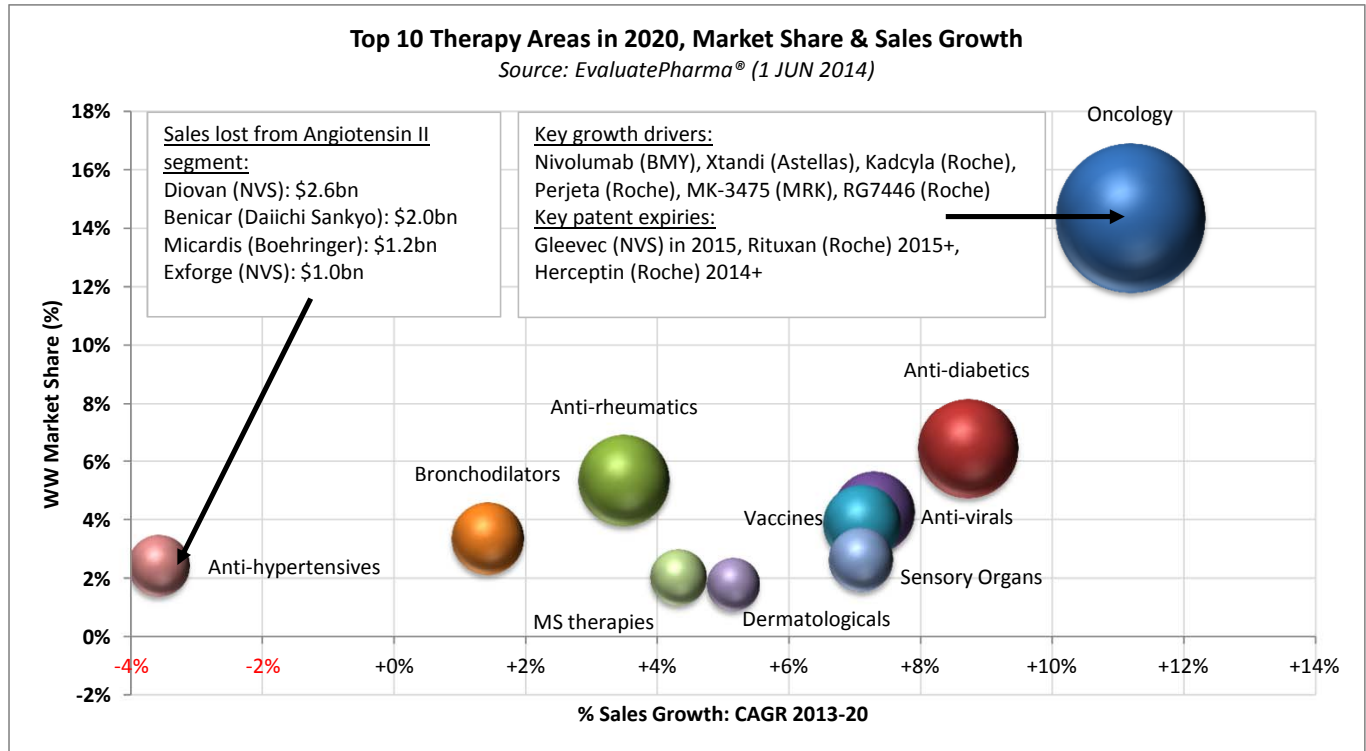
Note: The number of biologicals approved include biologicals from both CDER and CBER. In 2013 there were 2 CDER biologicals approved and EvaluatePharma estimates that there were 8 CBER biologicals approved: NovoThirteen, NovoEight, Prepandrix, Rixubis, Kcentra, BAT, Octaplas & FluBlok.



Worldwide Prescription Drug & OTC Sales by Therapy Area in 2020

Oncology the largest and fastest growing segment

EvaluatePharma® finds that oncology will remain the largest segment in 2020 with forecasts showing an annual growth of 11.2% and over \$153bn sales in 2020. Growth from in-line products, and potential new entrants, is forecast to more than compensate for a number of major patent expiries over the period. Factor Xa inhibitors, Eliquis and Xarelto, are expected to drive a 10.4% annual growth in the anti-coagulant segment and collectively account for almost \$9bn of new sales in 2020. Patent expiries on key products continue to erode sales from anti-hyperlipidaemics, with this segment falling seven places over the period to 2020.



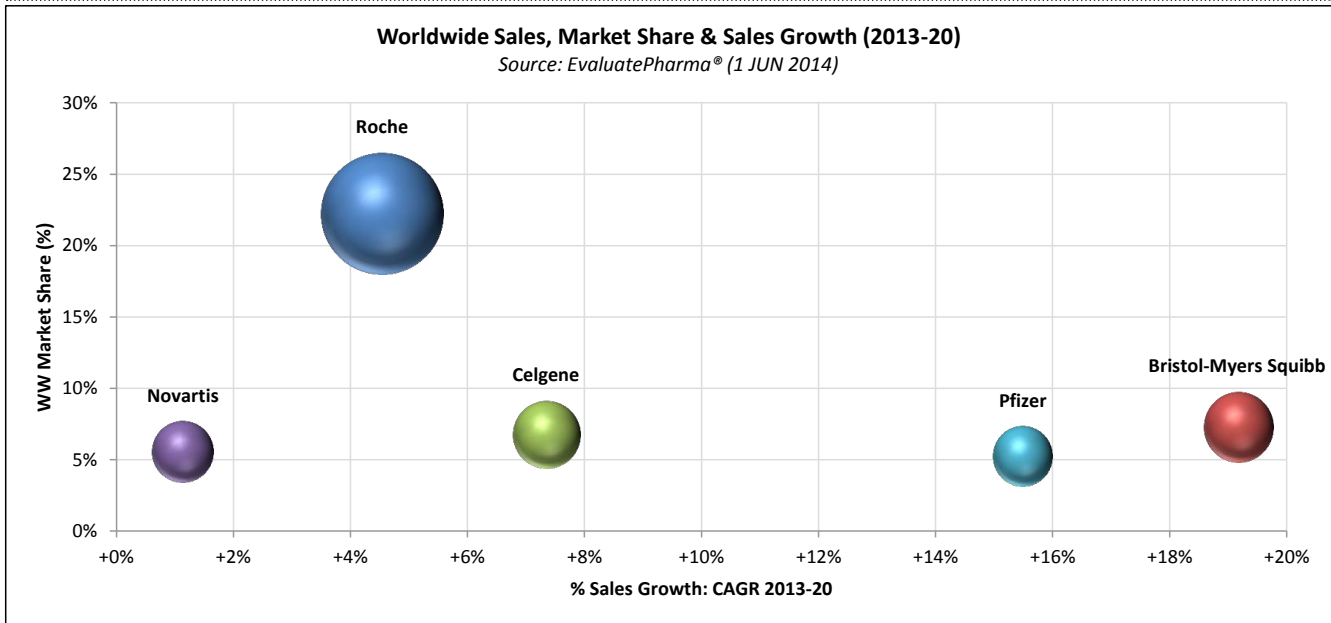
Worldwide Prescription Drug & OTC Sales by EvaluatePharma® Therapy Area (2013 & 2020): Top 15 Categories & Total Market

Therapy Area	WW Sales (\$bn)		CAGR % Growth	WW Market		Chg. (+/-)	Rank Chg. (+/-)
	2013	2020		2013	2020		
1 Oncology	72.8	153.1	+11.2%	9.7%	14.4%	+4.7pp	+0
2 Anti-diabetics	38.4	68.9	+8.7%	5.1%	6.5%	+1.4pp	+1
3 Anti-rheumatics	44.9	57.1	+3.5%	6.0%	5.4%	-0.6pp	-1
4 Anti-virals	27.8	45.6	+7.3%	3.7%	4.3%	+0.6pp	+2
5 Vaccines	25.6	41.3	+7.1%	3.4%	3.9%	+0.5pp	+2
6 Bronchodilators	32.6	35.9	+1.4%	4.3%	3.4%	-0.9pp	-1
7 Sensory Organs	17.5	28.2	+7.1%	2.3%	2.7%	+0.3pp	+2
8 Anti-hypertensives	33.7	26.1	-3.6%	4.5%	2.4%	-2.0pp	-4
9 MS therapies	16.2	21.8	+4.3%	2.2%	2.0%	-0.1pp	+1
10 Dermatology	13.5	19.2	+5.1%	1.8%	1.8%	+0.0pp	+3
11 Anti-coagulants	8.9	17.8	+10.4%	1.2%	1.7%	+0.5pp	+6
12 Anti-bacterials	14.6	17.7	+2.8%	1.9%	1.7%	-0.3pp	-1
13 Anti-fibrinolytics	11.1	16.4	+5.7%	1.5%	1.5%	+0.1pp	+2
14 Immunosuppressants	7.9	14.8	+9.4%	1.1%	1.4%	+0.3pp	+6
15 Anti-hyperlipidaemics	19.3	13.0	-5.5%	2.6%	1.2%	-1.3pp	-7
Top 15	385	577	+6.0%	51.0%	54.2%	+3.2pp	
Other	369	488	+4.0%	49.0%	45.8%	-3.2pp	
Total WW Rx & OTC Sales	754	1,065	+5.0%	100.0%	100.0%		
Total 'Rx & OTC Sales' includes:							
WW Generic Sales	68.5	106.6	+6.5%	9.1%	10.0%	+0.9%	
OTC Pharmaceuticals	36.8	47.3	+3.6%	4.9%	4.4%	-0.4%	

Source: EvaluatePharma® (1 JUN 2014)

Roche expected to dominate oncology market

EvaluatePharma® finds that Roche continued to be the largest player in the oncology market in 2013 with \$25.0bn of sales, accounting for over a third of the entire market. This is expected to continue through 2020 with a 5% year-on-year growth between 2013 and 2020. Although Roche's market share is forecast to fall by 12 percentage points, by 2020, to 22.3%, total sales are still expected to be over \$34bn. A key growth driver is an exciting new class of cancer products targeting the programmed death-1 (PD-1) pathway with a collective value of \$14bn in 2020. Overall, the entire oncology market is expected to expand by an average 11% per year between 2013 and 2020 and will account for \$153.4bn of global pharmaceutical sales.



Note: Bubble = WW Sales in 2020

Top 10 Companies & Total Worldwide Oncology Sales 2013-20

Rank	Company	WW Sales (\$m)		CAGR 2013-20	WW Market Share		Rank Chg. 2013-20
		2013	2020		2013	2020	
1	Roche	25,026	34,144	+5%	34.3%	22.3%	-
2	Bristol-Myers Squibb	3,279	11,197	+19%	4.5%	7.3%	+3
3	Celgene	6,336	10,405	+7%	8.7%	6.8%	-
4	Novartis	7,871	8,517	+1%	10.8%	5.6%	-2
5	Pfizer	2,947	8,075	+15%	4.0%	5.3%	+2
6	Johnson & Johnson	3,705	6,184	+8%	5.1%	4.0%	-2
7	Astellas Pharma	757	5,584	+33%	1.0%	3.6%	+9
8	AstraZeneca	3,193	5,242	+7%	4.4%	3.4%	-2
9	Eli Lilly	2,875	4,813	+8%	3.9%	3.1%	-1
10	Merck & Co	752	4,238	+28%	1.0%	2.8%	+7
Top 10		56,741	98,401	+8%	77.9%	64.2%	
Other		16,123	54,980	+19%	22.1%	35.8%	
Total Industry		72,864	153,381	+11%	100.0%	100.0%	

Source: EvaluatePharma® (1 JUN 2014)

Top 5 Oncology Products Worldwide in 2020

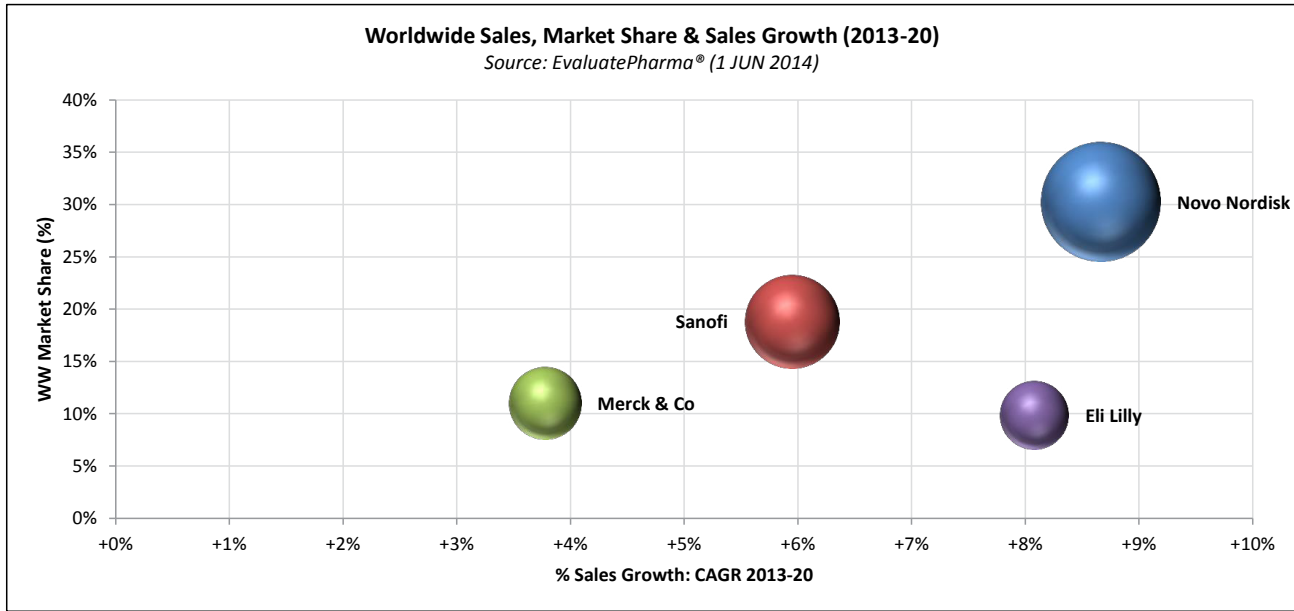
Rank	Product	Generic Name	Company	Pharma Class	WW Sales (\$m)		CAGR 2013-20	WW Market Share		Current Status
					2013	2020		2013	2020	
1	Avastin	bevacizumab	Roche	Anti-VEGF MAb	6,751	6,613	-0%	9.3%	4.3%	Marketed
2	Nivolumab	nivolumab	Bristol-Myers Squibb + Ono	Anti-programmed death-1 MAb	0	6,361	n/m	0.0%	4.1%	R&D
3	Revlimid	lenalidomide	Celgene	Immunomodulator	4,280	6,253	+6%	5.9%	4.1%	Marketed
4	Rituxan	rituximab	Roche	Anti-CD20 MAb	7,503	5,627	-4%	10.3%	3.7%	Marketed
5	Xtandi	enzalutamide	Astellas Pharma	Androgen receptor antagonist	545	5,353	+39%	0.7%	3.5%	Marketed

Note: Oncology includes: Alkaloids, Alkylating agents, Anti-metabolites, Anti-neoplastic MABs, Cancer vaccines, Cytotoxic antibiotics, Hormone therapies, Platinum compounds and other anti-cancer. Excludes anti-emetics and anti-anaemics used in chemotherapy-induced anaemia. Also excludes: Interferons, Immunostimulants & Immunosuppressants.

Note: Novartis revenues in 2020 do not include potential revenue from GSK's oncology portfolio, deal due to close H1 2015.

Novo Nordisk continues to dominate anti-diabetics market

EvaluatePharma® finds that Novo Nordisk is expected to remain the most significant player in the anti-diabetic market in 2020 accounting for more than 30% of total sales. Bristol-Myers Squibb is expected to fall out of the top 10 following the disposal of its diabetes business in early 2014. AstraZeneca, which bought the unit from Bristol-Myers, is forecast to be the fifth biggest player by 2020. Johnson & Johnson is expected to climb seven places in 2020, largely due to strong growth from recently approved Invokana.



Note: Bubble = WW Sales in 2020

Note: AstraZeneca not plotted on chart because CAGR is not meaningful

Top 10 Companies & Total Worldwide Anti-Diabetic Sales 2013-20

Rank	Company	WW Sales (\$m)		CAGR 2013-20	WW Market Share		Rank Chg. 2013-20
		2013	2020		2013	2020	
1	Novo Nordisk	11,659	20,855	+9%	30.4%	30.3%	+0
2	Sanofi	8,660	12,976	+6%	22.6%	18.8%	+0
3	Merck & Co	5,866	7,602	+4%	15.3%	11.0%	+0
4	Eli Lilly	3,965	6,829	+8%	10.3%	9.9%	+0
5	AstraZeneca	0	4,020	n/m	n/m	5.8%	New
6	Boehringer Ingelheim	547	3,036	+28%	1.4%	4.4%	+4
7	Johnson & Johnson	151	2,346	+48%	0.4%	3.4%	+7
8	Novartis	1,280	2,099	+7%	3.3%	3.0%	-2
9	Takeda	1,048	1,566	+6%	2.7%	2.3%	-2
10	Merck KGaA	523	807	+6%	1.4%	1.2%	+1
Top 10		33,699	62,136	+9%	87.8%	90.2%	
Other		4,692	6,740	+5%	12.2%	9.8%	
Total Industry		38,391	68,877	+9%	100.0%	100.0%	

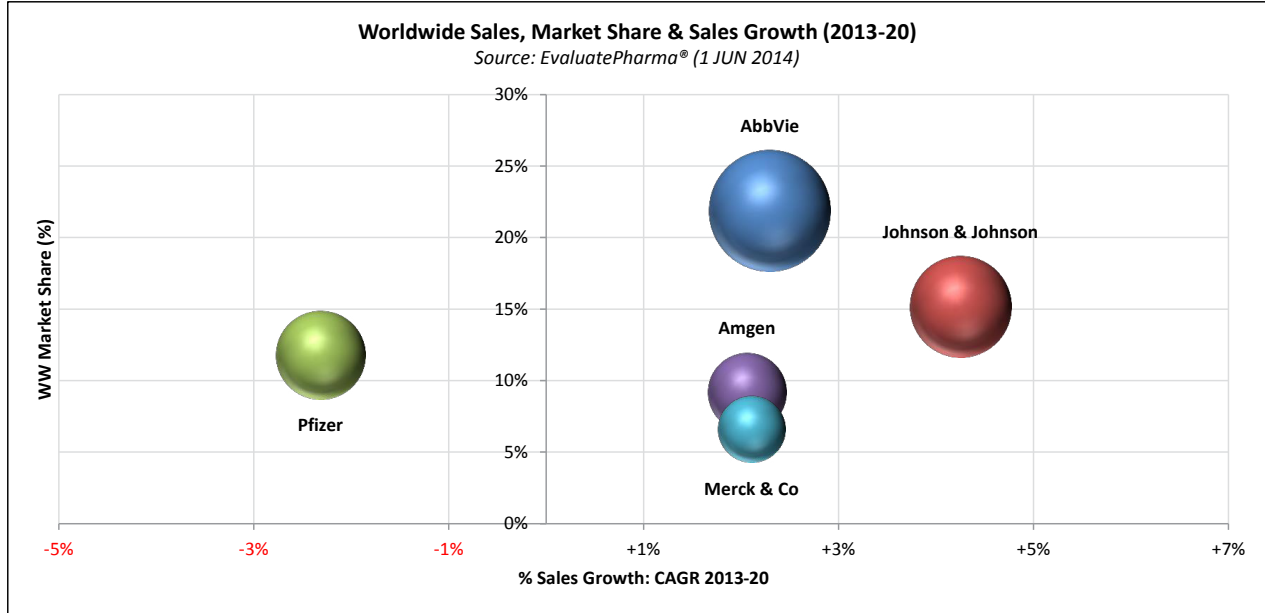
Source: EvaluatePharma® (1 JUN 2014)

Top 5 Anti-Diabetic Products Worldwide in 2020

Rank	Product	Generic Name	Company	Pharma Class	WW Sales (\$m)		CAGR 2013-20	WW Market Share		Current Status
					2013	2020		2013	2020	
1	Lantus	insulin glargine recombinant	Sanofi	Insulin	7,592	10,252	+4%	19.8%	14.9%	Marketed
2	Januvia/Janumet	sitagliptin phosphate	Merck & Co + Daewoong	Dipeptidyl peptidase IV inhibitor	5,842	6,895	+2%	15.2%	10.0%	Marketed
3	Victoza	liraglutide	Novo Nordisk	Glucagon-like peptide 1 agonist	2,072	4,443	+12%	5.4%	6.5%	Marketed
4	NovoRapid	insulin aspart	Novo Nordisk	Insulin	3,001	4,438	+6%	7.8%	6.4%	Marketed
5	Humalog	insulin lispro recombinant	Eli Lilly	Insulin	2,611	2,902	+2%	6.8%	4.2%	Marketed

AbbVie continues to lead anti-rheumatics market in 2020

EvaluatePharma® finds that AbbVie will remain the world's number one player in anti-rheumatics in 2020, with sales of \$12.5bn accounting for 22% of the entire market. Celgene is expected to make its debut in the top 10 by 2020 following the approval of its phosphodiesterase IV inhibitor, Otezla, in early 2014. Roche's sales in this segment are forecast to grow at a healthy 13% per year, entirely on the back of its anti-interleukin-6 monoclonal antibody, Actemra.



Top 10 Companies & Total Worldwide Anti-Rheumatic Sales 2013-20

Rank	Company	WW Sales (\$m)		CAGR 2013-20	WW Market Share		Rank Chg. 2013-20
		2013	2020		2013	2020	
1	AbbVie	10,659	12,492	+2%	23.7%	21.9%	-
2	Johnson & Johnson	6,470	8,660	+4%	14.4%	15.2%	+1
3	Pfizer	7,931	6,731	-2%	17.7%	11.8%	-1
4	Amgen	4,551	5,250	+2%	10.1%	9.2%	-
5	Merck & Co	3,255	3,766	+2%	7.3%	6.6%	-
6	Bristol-Myers Squibb	1,444	2,485	+8%	3.2%	4.4%	-
7	Roche	907	2,096	+13%	2.0%	3.7%	+2
8	Celgene	-	1,814	n/m	n/m	3.2%	New
9	UCB	789	1,488	+9%	1.8%	2.6%	+2
10	Bayer	1,043	1,311	+3%	2.3%	2.3%	-2
Top 10		37,048	46,093	+3%	82.5%	80.8%	
Other		7,839	10,980	+5%	17.5%	19.2%	
Total Industry		44,887	57,073	+3%	100.0%	100.0%	

Source: EvaluatePharma® (1 JUN 2014)

Top 5 Anti-Rheumatic Products Worldwide in 2020

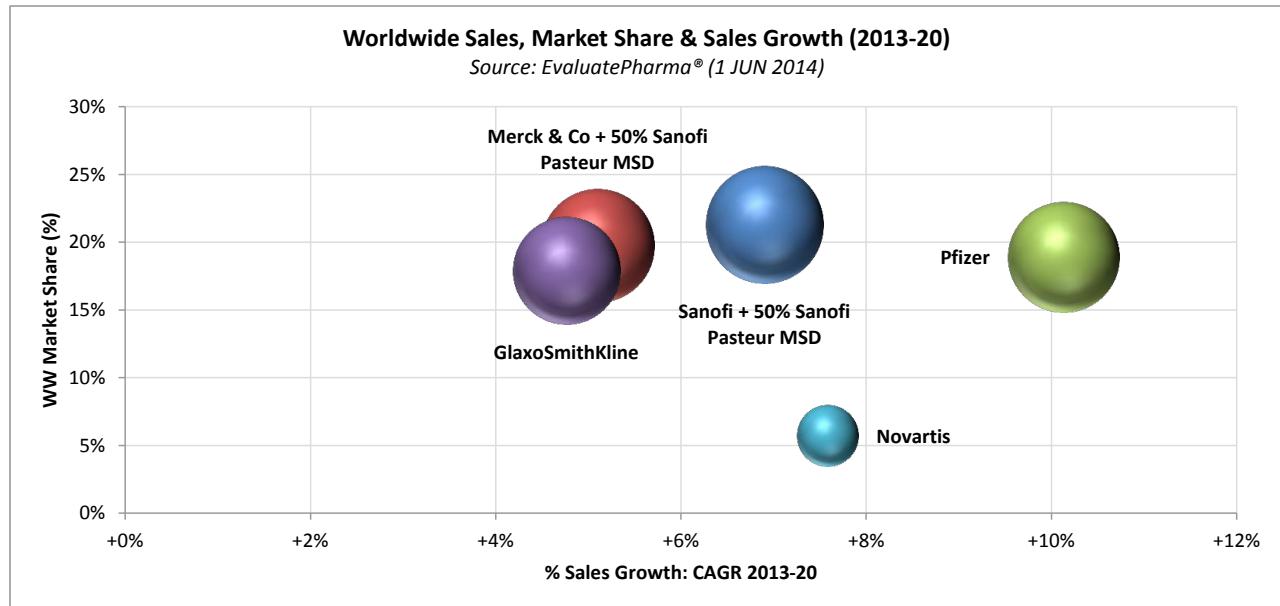
Rank	Product	Generic Name	Company	Pharma Class	WW Sales (\$m)		CAGR 2013-20	WW Market Share		Current Status
					2013	2020		2013	2020	
1	Humira	adalimumab	AbbVie + Eisai	Anti-TNFa MAb	11,014	12,707	+2%	24.5%	22.3%	Marketed
2	Enbrel	etanercept	Pfizer + Amgen + Takeda	Anti-TNFa MAb	8,778	8,572	-0%	19.6%	15.0%	Marketed
3	Remicade	infliximab	JNJ + Merck + Mitsubishi	Anti-TNFa MAb	8,367	8,217	-0%	18.6%	14.4%	Marketed
4	Simponi	golimumab	JNJ + Merck	Anti-TNFa MAb	1,432	3,910	+15%	3.2%	6.9%	Marketed
5	Actemra	tocilizumab	Roche	Anti-interleukin-6 MAb	907	2,096	+13%	2.0%	3.7%	Marketed

Note: Anti-tumour necrosis factor alpha (TNFα) inhibitor sales include RA, Crohn's and Psoriasis.

*Combined Remicade and Simponi sales \$12.1bn in 2020. Simponi (golimumab) is Merck & Co and J&J's next generation product to Remicade (infliximab).

Sanofi number one vaccine company in 2020

EvaluatePharma® finds that Sanofi, including its share of the Sanofi Pasteur MSD JV with Merck & Co, tops the table in 2020 with an estimated \$8.8bn in vaccine sales or 21.3% of the entire market. Pfizer is also expected to show strong growth in this segment (an average 10% per year) largely due to the solid performance of its pneumococcal vaccine, Prevnar 13, which is forecast to sell over \$6.0bn in 2020.



Note: Bubble = WW Sales in 2020

Top 10 Companies & Total Worldwide Vaccine Sales 2013-20

Rank	Company	WW Sales (\$m)		CAGR 2013-20	WW Market Share		Rank Chg. 2013-20
		2013	2020		2013	2020	
1	Sanofi + 50% Sanofi Pasteur MSD	5,518	8,805	+7%	21.6%	21.3%	+1
2	Merck & Co + 50% Sanofi Pasteur MSD	5,766	8,167	+5%	22.6%	19.8%	-1
3	Pfizer	3,974	7,808	+10%	15.5%	18.9%	+1
4	GlaxoSmithKline	5,351	7,412	+5%	20.9%	17.9%	-1
5	Novartis	1,416	2,363	+8%	5.5%	5.7%	+0
6	Novavax	-	946	n/m	n/m	2.3%	New
7	Johnson & Johnson	346	913	+15%	1.4%	2.2%	+1
8	Emergent BioSolutions	247	639	+15%	1.0%	1.5%	+4
9	CSL	434	464	+1%	1.7%	1.1%	-3
10	Astellas Pharma	350	414	+2%	1.4%	1.0%	-3
Top 10		23,401	37,929	+7%	91.5%	91.8%	
Other		2,166	3,391	+7%	8.5%	8.2%	
Total Industry		25,567	41,320	+7%	100.0%	100.0%	

Source: EvaluatePharma® (1 JUN 2014)

Top 5 Vaccine Products Worldwide in 2020

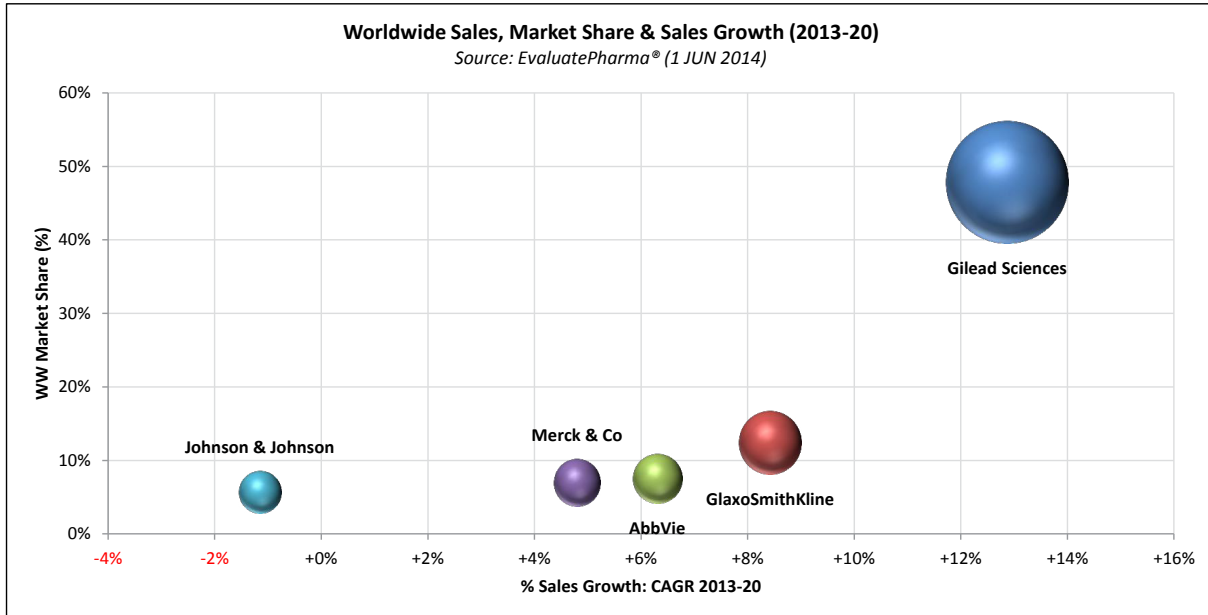
Rank	Product	Generic Name	Company	WW Sales (\$m)		CAGR 2013-20	WW Market Share		Current Status
				2013	2020		2013	2020	
1	Prevnar 13	pneumococcal vaccine	Pfizer + Daewoong	3,763	6,078	+7%	14.7%	14.7%	Marketed
2	Pentacel	DTPw, Hib & polio vaccine	Sanofi	1,525	2,343	+6%	6.0%	5.7%	Marketed
3	Gardasil	human papillomavirus (HPV) vaccine	Merck & Co	1,831	2,055	+2%	7.2%	5.0%	Marketed
4	Fluzone/Vaxigrip	influenza vaccine	Sanofi	1,234	1,822	+6%	4.8%	4.4%	Marketed
5	Pediarix	DTP, hepatitis B & polio vaccine	GlaxoSmithKline	1,349	1,726	+4%	5.3%	4.2%	Marketed

Note: Sanofi Pasteur MSD is a European joint venture between Merck & Co and Sanofi. CSL 2013 sales based on consensus forecast. Sales for GSK and NVS do not reflect proposed acquisition of NVS's non-flu vaccine business by GSK.



Gilead expected to account for almost half of all anti-virals

EvaluatePharma® finds that Gilead will command 47.8% market share of anti-viral sales in 2020 with sales set to increase 13% annually between 2013 and 2020. The company's recently launched hepatitis C product, Sovaldi, is forecast to generate over \$8.0bn in new sales in 2020. The Sovaldi franchise may be further enhanced by an additional \$2.8bn, subject to approval of its combination follow-on product, Ledipasvir/Sofosbuvir.



Note: Bubble = WW Sales in 2020

Top 10 Companies & Total Worldwide Anti-viral Sales 2013-20

Rank	Company	WW Sales (\$m)		CAGR 2013-20	WW Market Share		Rank Chg. 2013-20
		2013	2020		2013	2020	
1	Gilead Sciences	9,340	21,797	+13%	33.5%	47.8%	-
2	GlaxoSmithKline	3,212	5,657	+8%	11.5%	12.4%	+1
3	AbbVie	2,232	3,425	+6%	8.0%	7.5%	+3
4	Merck & Co	2,281	3,167	+5%	8.2%	7.0%	+1
5	Johnson & Johnson	2,828	2,607	-1%	10.2%	5.7%	-1
6	Bristol-Myers Squibb	3,330	1,832	-8%	12.0%	4.0%	-4
7	Sino Biopharmaceutical	618	1,393	+12%	2.2%	3.1%	+1
8	Achillion Pharmaceuticals	-	595	n/m	n/m	1.3%	New
9	AstraZeneca	617	583	-1%	2.2%	1.3%	-
10	Roche	1,550	578	-13%	5.6%	1.3%	-3
Top 10		26,008	41,635	+7%	93.4%	91.4%	
Other		1,833	3,925	+11%	6.6%	8.6%	
Total Industry		27,841	45,560	+7%	100.0%	100.0%	

Source: EvaluatePharma® (1 JUN 2014)

Top 5 Anti-viral Products Worldwide in 2020

Rank	Product	Generic Name	Company	Pharma Class	WW Sales (\$m)		CAGR 2013-20	Share		Current Status
					2013	2020		2013	2020	
1	Sovaldi	sofosbuvir	Gilead Sciences	Hep C nucleoside NS5B polymerase inhibitor	139	8,027	+78%	0.5%	17.6%	Marketed
2	Stribild	cobicistat; elvitegravir; emtricitabine; tenofovir disoproxil fumarate	Gilead Sciences	NRTI, HIV integrase inhibitor & CYP3A inhibitor	539	4,678	+36%	1.9%	10.3%	Marketed
3	Tivicay	dolutegravir	GlaxoSmithKline	HIV integrase inhibitor	30	3,044	+94%	0.1%	6.7%	Marketed
4	Ledipasvir/Sofosbuvir	ledipasvir; sofosbuvir	Gilead Sciences	Hep C nucleoside NS5A & NS5B polymerase inhibitor	-	2,818	n/m	-	6.2%	R&D
5	Complera	emtricitabine; rilpivirine; tenofovir disoproxil fumarate	Gilead Sciences	NRTI & NNRTI	809	1,982	+14%	2.9%	4.3%	Marketed

Note: GlaxoSmithKline consolidates 100% of the revenues from Viiv Healthcare, a joint venture with Pfizer for the marketing of the two companies' HIV anti-virals. Sino Biopharmaceuticals 2013 sales based on consensus estimate.

2020: Top 50 Selling Products in the World

Humira is top selling worldwide product in 2020

EvaluatePharma® finds that the largest global brand in 2020 is forecast to be AbbVie's Humira with forecast sales of \$12.7bn. Despite the fact Humira's patent estate begins to expire late 2016, equity analysts are forecasting relatively modest sales erosion. Seven of the top 50 brands that are still in R&D and three of them target the programmed death-1 pathway. Collectively, these three products have risk-adjusted forecast sales of over \$13bn in 2020, a figure that will likely be revised upward if they ultimately receive regulatory approval.

Product	Generic Name	Company	Pharmacological Class	WW Product Sales (\$m)			Market Status
				2013	2020	CAGR	
1 Humira	adalimumab	Abbvie + Eisai	Anti-tumour necrosis factor alpha MAb	11,014	12,707	+2%	Marketed
2 Lantus	insulin glargine recombinant	Sanofi	Insulin	7,592	10,252	+4%	Marketed
3 Enbrel	etanercept	Amgen + Takeda + Pfizer	Tumour necrosis factor alpha inhibitor	8,778	8,572	-0%	Marketed
4 Remicade	infliximab	JNJ + Merck & Co + Mitsubishi	Anti-tumour necrosis factor alpha MAb	8,367	8,217	-0%	Marketed
5 Sovaldi	sofosbuvir	Gilead Sciences	Hepatitis C nucleoside NS5B polymerase inhibitor	139	8,027	+78%	Marketed
6 Januvia/Janumet	sitagliptin phosphate	Merck & Co + Daewoong	Dipeptidyl peptidase IV inhibitor	5,842	6,895	+2%	Marketed
7 Avastin	bevacizumab	Roche	Anti-VEGF MAb	6,751	6,613	-0%	Marketed
8 Xarelto	rivaroxaban	Bayer + JNJ	Factor Xa inhibitor	1,948	6,414	+19%	Marketed
9 Nivolumab	nivolumab	Bristol-Myers Squibb + Ono	Anti-programmed death-1 MAb	-	6,361	-	R&D
10 Tecfidera	dimethyl fumarate	Biogen Idec	Nuclear factor erythroid 2-related factor (Nrf2) pathway activator	876	6,310	+33%	Marketed
11 Relevid	lenalidomide	Celgene + Pharmstandard	Immunomodulator	4,302	6,253	+5%	Marketed
12 Prevnar 13	pneumococcal vaccine	Pfizer + Daewoong	Pneumococcal vaccine	3,763	6,078	+7%	Marketed
13 Eylea	afibercept	Regeneron + Bayer + Santen	VEGFR kinase inhibitor	2,039	5,852	+16%	Marketed
14 Rituxan	rituximab	Roche	Anti-CD20 MAb	7,503	5,627	-4%	Marketed
15 Xtandi	enzalutamide	Astellas Pharma	Androgen receptor antagonist	545	5,353	+39%	Marketed
16 Soliris	eculizumab	Alexion Pharmaceuticals	Anti-complement factor C5 MAb	1,551	5,202	+19%	Marketed
17 Imbruvica	ibrutinib	Pharmacyclics + JNJ	Bruton's tyrosine kinase inhibitor	14	5,123	+133%	Marketed
18 Herceptin	trastuzumab	Roche	Anti-HER2 (ErbB-2) MAb	6,562	5,054	-4%	Marketed
19 Kadcyca	ado-trastuzumab emtansine	Roche + Chugai	Anti-HER2 MAb-DM1 maytansinoid conjugate	253	4,912	+53%	Marketed
20 Stribild	cobicistat; elvitegravir; emtricitabine; tenofovir disoproxil fumarate	Gilead Sciences	Nucleoside reverse transcriptase inhibitor, HIV integrase inhibitor & CYP3A inhibitor	539	4,678	+36%	Marketed
21 Victoza	liraglutide	Novo Nordisk	Glucagon-like peptide 1 agonist	2,072	4,443	+12%	Marketed
22 Perjeta	pertuzumab	Roche	Anti-HER2 (ErbB-2) MAb	352	4,440	+44%	Marketed
23 NovoRapid	insulin aspart	Novo Nordisk	Insulin	3,001	4,438	+6%	Marketed
24 Botox	onabotulinumtoxinA	Allergan + GSK	Botulinum toxin	2,201	4,311	+10%	Marketed
25 Lucentis	ranibizumab	Novartis + Roche	Anti-VEGF MAb	4,206	4,064	-0%	Marketed
26 MK-3475	pembrolizumab	Merck & Co	Anti-programmed death-1 MAb	-	4,063	-	R&D
27 Simponi	golimumab	JNJ + Merck & Co	Anti-tumour necrosis factor alpha MAb	1,432	3,910	+15%	Marketed
28 Eliquis	apixaban	Bristol-Myers Squibb	Factor Xa inhibitor	146	3,717	+59%	Marketed
29 Gammagard Liquid ¹	immune globulin (human)	Baxter International	Immunoglobulin	2,118	3,533	+8%	Marketed
30 Xgeva/Prolia	denosumab	Amgen	Anti-RANKL MAb	1,763	3,527	+10%	Marketed
31 Neulasta	pegfilgrastim	Amgen + Kyowa Hakko	Granulocyte colony-stimulating factor	4,392	3,455	-3%	Marketed
32 Stelara	ustekinumab	Johnson & Johnson	Anti-interleukin-12 & interleukin-23 MAb	1,504	3,390	+12%	Marketed
33 Privigen ¹	immune globulin (human)	CSL	Immunoglobulin	2,100	3,158	+6%	Marketed
34 Spiriva	tiotropium bromide monohydrate	Boehringer Ingelheim	Long-acting muscarinic antagonist	4,719	3,129	-6%	Marketed
35 Tivicay	dolutegravir	GlaxoSmithKline	HIV integrase inhibitor	30	3,044	+94%	Marketed
36 RG7446	-	Roche + Chugai	Anti-programmed death-1 ligand-1 MAb	-	3,023	-	R&D
37 Obeticholic acid	obeticholic acid	Intercept Pharmaceuticals	Farnesoid X receptor agonist	-	2,992	-	R&D
38 Palbociclib	palbociclib	Pfizer	Cyclin-dependent kinase (CDK) 4 & 6 inhibitor	-	2,950	-	R&D
39 Humalog	insulin lispro recombinant	Eli Lilly	Insulin	2,611	2,902	+2%	Marketed
40 Kalydeco	ivacaftor	Vertex Pharmaceuticals	Cystic fibrosis transmembrane conductance regulator potentiator	371	2,867	+34%	Marketed
41 Seretide/Advair	fluticasone propionate; salmeterol xinafoate	GlaxoSmithKline	Beta 2 adrenoreceptor agonist & corticosteroid	8,251	2,849	-14%	Marketed
42 Gilenya	fingolimod hydrochloride	Novartis + Mitsubishi Tanabe	Sphingosine-1-phosphate receptor modulator	1,953	2,845	+6%	Marketed
43 Ledipasvir/Sofosbuvir	ledipasvir; sofosbuvir	Gilead Sciences	Hepatitis C nucleoside NS5A & NS5B polymerase inhibitor	-	2,818	-	R&D
44 Symbicort Turbuhaler	budesonide; formoterol fumarate dihydrate	AstraZeneca	Beta 2 adrenoreceptor agonist & corticosteroid	3,483	2,781	-3%	Marketed
45 Levemir	insulin detemir	Novo Nordisk	Insulin	2,057	2,780	+4%	Marketed
46 Anoro Ellipta	umeclidinium bromide; vilanterol trifenate	GlaxoSmithKline	Long-acting beta 2 adrenoreceptor agonist & long-acting muscarinic antagonist	-	2,744	-	Marketed
47 Vyvanse	lisdexamfetamine dimesylate	Shire + Shionogi	Psychostimulant	1,228	2,721	+12%	R&D
48 Nexium	esomeprazole magnesium	AstraZeneca + Daiichi Sankyo + Daewoong	Proton pump inhibitor (PPI)	4,431	2,636	-7%	Marketed
49 Tysabri	natalizumab	Biogen Idec	Anti-VLA-4 MAb	1,413	2,573	+9%	Marketed
50 Invokana	canagliflozin	JNJ + Mitsubishi Tanabe	Sodium-glucose cotransporter-2 inhibitor	151	2,484	+49%	Marketed
Total				134,365	233,086	+8%	
Total WW Individual Products Forecast in EvaluatePharma®				574,552	804,946	+5%	

Source: EvaluatePharma® (1 JUN 2014)

Note: Sales represent company reported sales where available, otherwise based on an average of equity analyst estimates. 1. Includes entire immunoglobulin/Ig sales for company.



2020: Top 50 Selling Products in the USA

Humira also top-selling product in US in 2020

EvaluatePharma® finds that AbbVie's Humira is set to be the number one product in the US in 2020 with sales of \$6.6bn. Gilead's recently launched hepatitis C therapy, Sovaldi, is forecast to sell \$4.6bn in 2020, representing an average annual growth of 65%, securing it a place in the top five.

Product	Generic Name	Company	Pharmacological Class	USA Product Sales (\$m)			US Market Status
				2013	2020	CAGR	
1 Humira	adalimumab	AbbVie	Anti-tumour necrosis factor alpha (TNFα) MAb	5,236	6,566	+3%	Marketed
2 Lantus	insulin glargine recombinant	Sanofi	Insulin	4,978	6,299	+3%	Marketed
3 Enbrel	etanercept	Amgen	Tumour necrosis factor alpha (TNFα) inhibitor	4,256	4,918	+2%	Marketed
4 Remicade	infliximab	Johnson & Johnson	Anti-tumour necrosis factor alpha (TNFα) MAb	3,891	4,594	+2%	Marketed
5 Sovaldi	sofosbuvir	Gilead Sciences	Hepatitis C nucleoside NS5B polymerase inhibitor	136	4,567	+65%	Marketed
6 Tecfidera	dimethyl fumarate	Biogen Idec	Nuclear factor erythroid 2-related factor (Nrf2) pathway activator	864	4,175	+25%	Marketed
7 Nivolumab	nivolumab	Bristol-Myers Squibb	Anti-programmed death-1 (PD-1) MAb	-	3,618		R&D
8 Eylea	afibercept	Regeneron Pharmaceuticals	VEGFR kinase inhibitor	1,409	3,583	+14%	Marketed
9 Imbruvica	ibrutinib	Pharmacyclics	Bruton's tyrosine kinase (BTK) inhibitor	14	3,564	+122%	Marketed
10 Xtandi	enzalutamide	Astellas Pharma	Androgen receptor antagonist	442	3,337	+33%	Marketed
11 Stribild	cobicistat; elvitegravir; emtricitabine; tenofovir disoproxil fumarate	Gilead Sciences	Nucleoside reverse transcriptase inhibitor (NRTI), HIV integrase inhibitor & CYP3A inhibitor	510	3,283	+30%	Marketed
12 Januvia/Janumet	sitagliptin phosphate	Merck & Co	Dipeptidyl peptidase IV inhibitor	2,946	3,255	+1%	Marketed
13 Prevnar 13	pneumococcal vaccine	Pfizer	Pneumococcal vaccine	1,804	3,109	+8%	Marketed
14 Perjeta	pertuzumab	Roche	Anti-HER2 (ErbB-2) MAb	236	2,983	+44%	Marketed
15 RG7446	-	Roche	Anti-programmed death-1 ligand-1 (PD-L1) MAb	-	2,937		R&D
16 Xarelto	rivaroxaban	Johnson & Johnson	Factor Xa inhibitor	864	2,905	+19%	Marketed
17 Spiriva	tiotropium bromide monohydrate	Boehringer Ingelheim	Long-acting muscarinic antagonist (LAMA)	2,416	2,723	+2%	Marketed
18 Neulasta	pegfilgrastim	Amgen	Granulocyte colony-stimulating factor (G-CSF)	3,499	2,640	-4%	Marketed
19 NovoRapid	insulin aspart	Novo Nordisk	Insulin	1,773	2,622	+6%	Marketed
20 Eliquis	apixaban	Bristol-Myers Squibb	Factor Xa inhibitor	97	2,617	+60%	Marketed
21 Revlimid	lenalidomide	Celgene	Immunomodulator	2,489	2,603	+1%	Marketed
22 Vyvanse	lisdexamfetamine dimesylate	Shire	Psychostimulant	1,194	2,540	+11%	Marketed
23 Gammagard Liquid ¹	immune globulin (human)	Baxter International	Immunoglobulin	1,451	2,489	+8%	Marketed
24 Stelara	ustekinumab	Johnson & Johnson	Anti-interleukin-12 (IL-12) & interleukin-23 (IL-23) MAb	957	2,310	+13%	Marketed
25 Botox	onabotulinumtoxinA	Allergan	Botulinum toxin	1,212	2,294	+10%	Marketed
26 Rituxan	rituximab	Roche	Anti-CD20 MAb	3,594	2,251	-6%	Marketed
27 Victoza	liraglutide	Novo Nordisk	Glucagon-like peptide 1 (GLP-1) agonist	1,343	2,192	+7%	Marketed
28 Xgeva/Prolia	denosumab	Amgen	Anti-RANKL MAb	1,226	2,172	+9%	Marketed
29 Avastin	bevacizumab	Roche	Anti-VEGF MAb	2,780	2,130	-4%	Marketed
30 MK-3475	pembrolizumab	Merck & Co	Anti-programmed death-1 (PD-1) MAb	-	2,115		R&D
31 Soliris	eculizumab	Alexion Pharmaceuticals	Anti-complement factor C5 MAb	561	1,910	+19%	Marketed
32 Kadcyla	ado-trastuzumab emtansine	Roche	Anti-HER2 (ErbB-2) MAb-DM1 maytansinoid conjugate	240	1,833	+34%	Marketed
33 Tivicay	dolutegravir	GlaxoSmithKline	HIV integrase inhibitor	30	1,826	+80%	Marketed
34 Ledipasvir/Sofosbuvir	ledipasvir; sofosbuvir	Gilead Sciences	Hepatitis C nucleoside NS5A & NS5B polymerase inhibitor	-	1,813		R&D
35 Lucentis	ranibizumab	Roche	Anti-VEGF MAb	1,823	1,809	-0%	Marketed
36 Anoro Ellipta	umeclidinium bromide; vilanterol trifenate	GlaxoSmithKline	Long-acting beta 2 adrenoreceptor agonist (LABA) & long-acting muscarinic antagonist (LAMA)	-	1,783		Marketed
37 Humalog	insulin lispro recombinant	Eli Lilly	Insulin	1,521	1,780	+2%	Marketed
38 Xifaxan 550	rifaximin	Salix Pharmaceuticals	Hepatoprotectant	646	1,757	+15%	Marketed
39 Palbociclib	palbociclib	Pfizer	Cyclin-dependent kinase (CDK) 4 & 6 inhibitor	-	1,749		R&D
40 Tysabri	natalizumab	Biogen Idec	Anti-VLA-4 MAb	701	1,737	+14%	Marketed
41 Levemir	insulin detemir	Novo Nordisk	Insulin	1,215	1,643	+4%	Marketed
42 Xyrem	sodium oxybate	Jazz Pharmaceuticals	CNS depressant	569	1,623	+16%	Marketed
43 Kalydeco	ivacaftor	Vertex Pharmaceuticals	Cystic fibrosis transmembrane conductance regulator (CFTR) potentiator	217	1,604	+33%	Marketed
44 Epogen/Procrit	epoetin alfa	Amgen + JNJ	Erythropoietin	2,748	1,502	-8%	Marketed
45 Breo Ellipta	fluticasone furoate; vilanterol trifenate	GlaxoSmithKline	Long-acting beta 2 adrenoreceptor agonist (LABA) & corticosteroid	8	1,497	+112%	Marketed
46 Gardasil	human papillomavirus (HPV) vaccine	Merck & Co	Human papillomavirus (HPV) vaccine	1,295	1,483	+2%	Marketed
47 Invokana	canagliflozin	Johnson & Johnson	Sodium-glucose cotransporter-2 (SGLT2) inhibitor	130	1,459	+41%	Marketed
48 Kyprolis	carfilzomib	Amgen + Onyx	Proteasome inhibitor	270	1,435	+27%	Marketed
49 Abraxane	paclitaxel (albumin-bound)	Celgene	Taxane	505	1,418	+16%	Marketed
50 Eyleyo	taliglucerase alfa	Pfizer	Glucocerebrosidase	28	1,407	+75%	Marketed
Total				64,123	130,461	+11%	
Total USA Individual Products Forecast in EvaluatePharma®				250,812	369,662	+6%	

Source: EvaluatePharma® (1 JUN 2014)

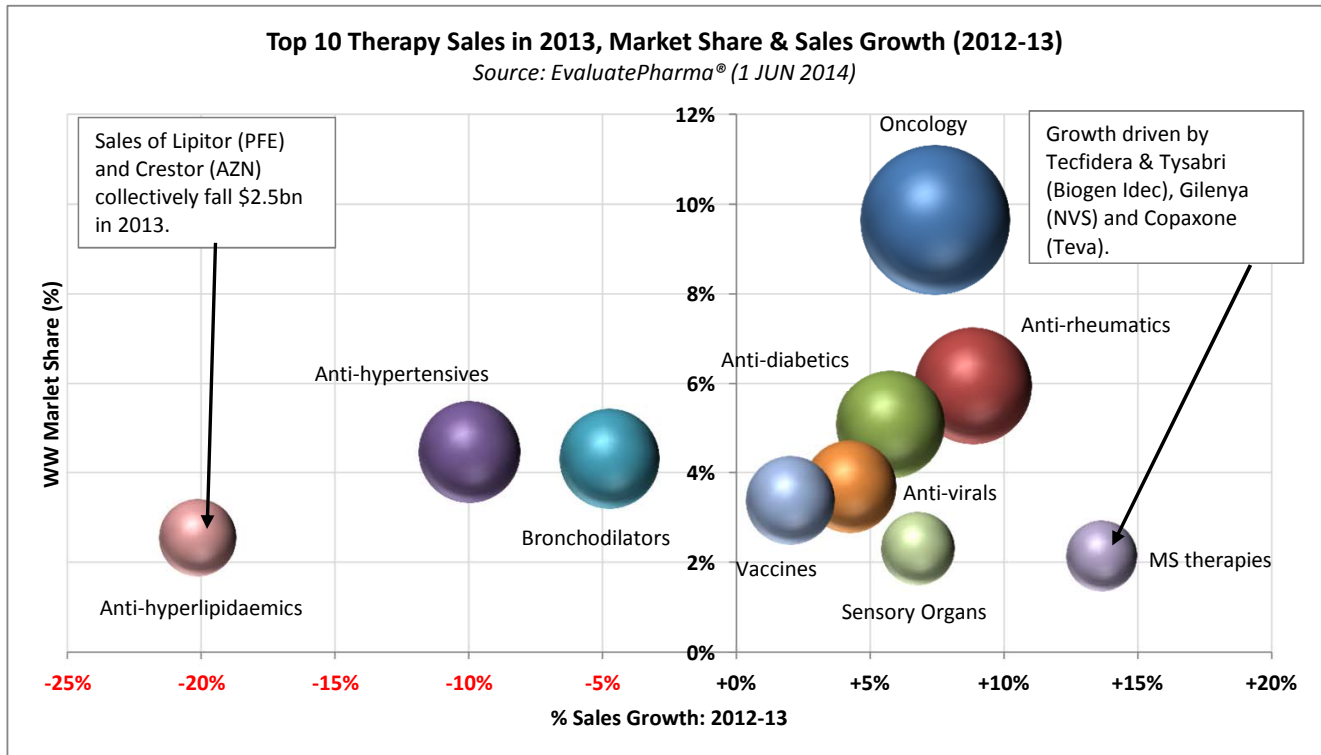
Note: Sales represent company reported sales where available, otherwise based on an average of equity analyst estimates.
1. Includes entire Immunoglobulin/Vlg sales for company



Worldwide Prescription Drug & OTC Sales by Therapy Area in 2013

Oncology is the largest segment in 2013

EvaluatePharma® finds that oncology remained the largest therapeutic category in 2013 with sales growing by 7% to \$72.8bn and accounting for 9.7% of the total worldwide Rx and OTC market. The multiple sclerosis segment was the fastest growing at 14% bringing total 2013 sales to \$16.2bn. This growth was primarily a result of strong performance of Biogen Idec's Tecfidera and Tysabri, Novartis's Gilenya and Teva's Copaxone. Sales of anti-hyperlipidaemics fell 20%, primarily due to the continued sales erosion of Pfizer's Lipitor, post patent expiry.



Worldwide Prescription Drug & OTC Sales by Therapy Area: Top 15 Categories

Therapy Area	WW Sales (\$bn)			WW Market Share			Rank
	2012	2013	% Growth	2012	2013	Chg. (+/-)	Chg. (+/-)
1 Oncology	67.8	72.8	+7%	9.0%	9.7%	+0.6pp	-
2 Anti-rheumatics	41.2	44.9	+9%	5.5%	6.0%	+0.5pp	-
3 Anti-diabetics	36.3	38.4	+6%	4.8%	5.1%	+0.3pp	+1
4 Anti-hypertensives	37.4	33.7	-10%	5.0%	4.5%	-0.5pp	-1
5 Bronchodilators	34.2	32.6	-5%	4.5%	4.3%	-0.2pp	-
6 Anti-virals	26.7	27.8	+4%	3.6%	3.7%	+0.1pp	-
7 Vaccines	25.1	25.6	+2%	3.3%	3.4%	+0.1pp	-
8 Anti-hyperlipidaemics	24.2	19.3	-20%	3.2%	2.6%	-0.7pp	-
9 Sensory Organs	16.3	17.5	+7%	2.2%	2.3%	+0.1pp	-
10 MS therapies	14.3	16.2	+14%	1.9%	2.2%	+0.3pp	+2
11 Anti-bacterials	15.0	14.6	-3%	2.0%	1.9%	-0.1pp	-
12 Anti-psychotics	15.2	14.1	-7%	2.0%	1.9%	-0.1pp	-2
13 Dermatologicals	14.1	13.5	-4%	1.9%	1.8%	-0.1pp	-
14 Antacids and Anti-ulcerants	14.1	13.1	-7%	1.9%	1.7%	-0.1pp	-
15 Anti-fibrinolytics	10.6	11.1	+5%	1.4%	1.5%	+0.1pp	+1
Top 15	392.5	395.3	+1%	52.2%	52.4%	+0.2pp	
Other	359.7	359.1	-0%	47.8%	47.6%		
Total WW Rx & OTC Sales	752.2	754.3	+0%	100.0%	100.0%		
Total 'Rx & OTC Sales' includes:							
WW Generic Sales	65.6	68.5	+5%	8.7%	9.1%	+0.4pp	
OTC Pharmaceuticals	36.7	36.8	+0%	4.9%	4.9%	+0.0pp	

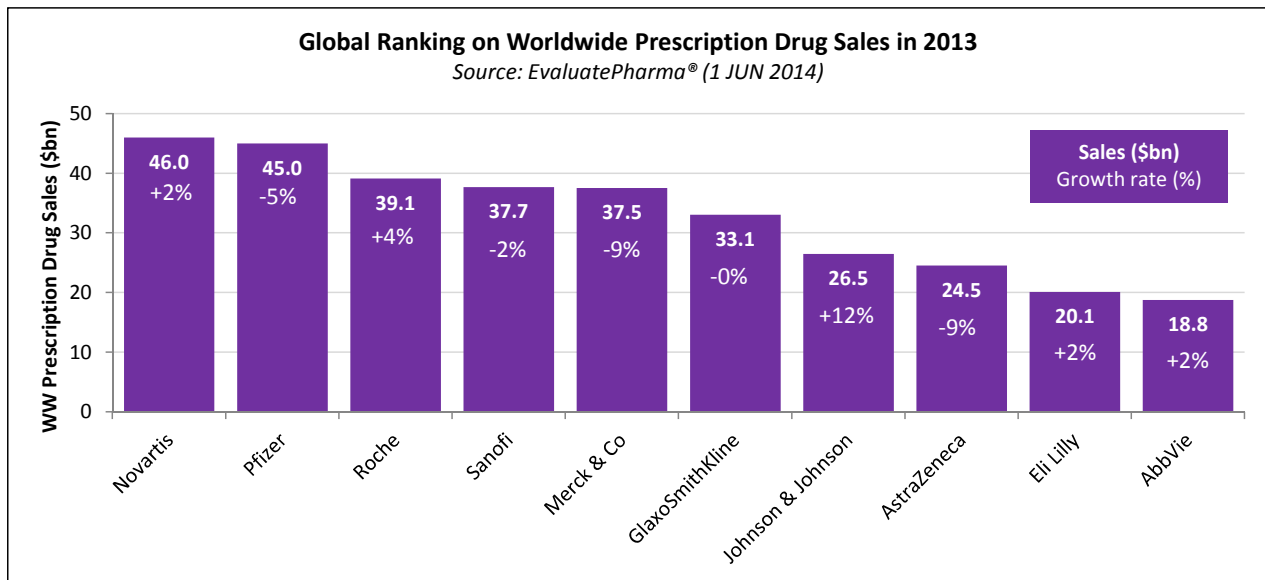
Note: Industry sales based on Top 500 pharmaceutical and biotech companies. Sales in 2013 based on company reported data.



Worldwide Prescription Drug Sales in 2013

Pfizer knocked from number one position; Novartis takes the crown

EvaluatePharma® finds that Novartis became the number one pharmaceutical company in 2013, in terms of worldwide prescription drug sales, selling \$1.0bn more than the previous leader, Pfizer. Gilead Sciences continued to impress with year-on-year growth of 15% bringing its total 2013 Rx sales to \$10.8bn. Overall, industry-wide prescription drug sales showed minimal growth between 2012 and 2013 at 0.3%.



Worldwide Prescription Drug Sales in 2013: Top 20 Companies

Company	WW Rx Sales (\$bn)			WW Market Share			Rank
	2012	2013	% Growth	2012	2013	Chg. (+/-)	Chg. (+/-)
1 Novartis	45.3	46.0	+2%	6.3%	6.4%	+0.1pp	+1
2 Pfizer	47.4	45.0	-5%	6.6%	6.3%	-0.4pp	-1
3 Roche	37.5	39.1	+4%	5.2%	5.5%	+0.2pp	+2
4 Sanofi	38.3	37.7	-2%	5.4%	5.3%	-0.1pp	-
5 Merck & Co	41.1	37.5	-9%	5.7%	5.2%	-0.5pp	-2
6 GlaxoSmithKline	33.2	33.1	-0%	4.6%	4.6%	-0.0pp	-
7 Johnson & Johnson	23.7	26.5	+12%	3.3%	3.7%	+0.4pp	+1
8 AstraZeneca	27.1	24.5	-9%	3.8%	3.4%	-0.4pp	-1
9 Eli Lilly	19.7	20.1	+2%	2.8%	2.8%	+0.0pp	-
10 AbbVie	18.4	18.8	+2%	2.6%	2.6%	+0.1pp	-
11 Amgen	16.6	18.2	+9%	2.3%	2.5%	+0.2pp	+1
12 Teva Pharmaceutical Industries	17.7	17.6	-1%	2.5%	2.4%	-0.0pp	-1
13 Bayer	14.7	15.6	+6%	2.1%	2.2%	+0.1pp	+1
14 Novo Nordisk	13.5	14.9	+10%	1.9%	2.1%	+0.2pp	+2
15 Boehringer Ingelheim	14.7	14.5	-1%	2.0%	2.0%	-0.0pp	-
16 Takeda	15.2	13.4	-12%	2.1%	1.9%	-0.3pp	-3
17 Bristol-Myers Squibb	13.3	12.3	-7%	1.9%	1.7%	-0.1pp	-
18 Gilead Sciences	9.4	10.8	+15%	1.3%	1.5%	+0.2pp	+2
19 Astellas Pharma	10.8	10.3	-5%	1.5%	1.4%	-0.1pp	-1
20 Daiichi Sankyo	10.7	10.0	-6%	1.5%	1.4%	-0.1pp	-1
Total Top 20	468.2	465.9	-0%	65.4%	64.9%	-0.5pp	
Other	247.4	251.6	+2%	34.6%	35.1%		
Total	715.6	717.5	+0.3%	100.0%	100.0%		

Source: EvaluatePharma® (1 JUN 2014)

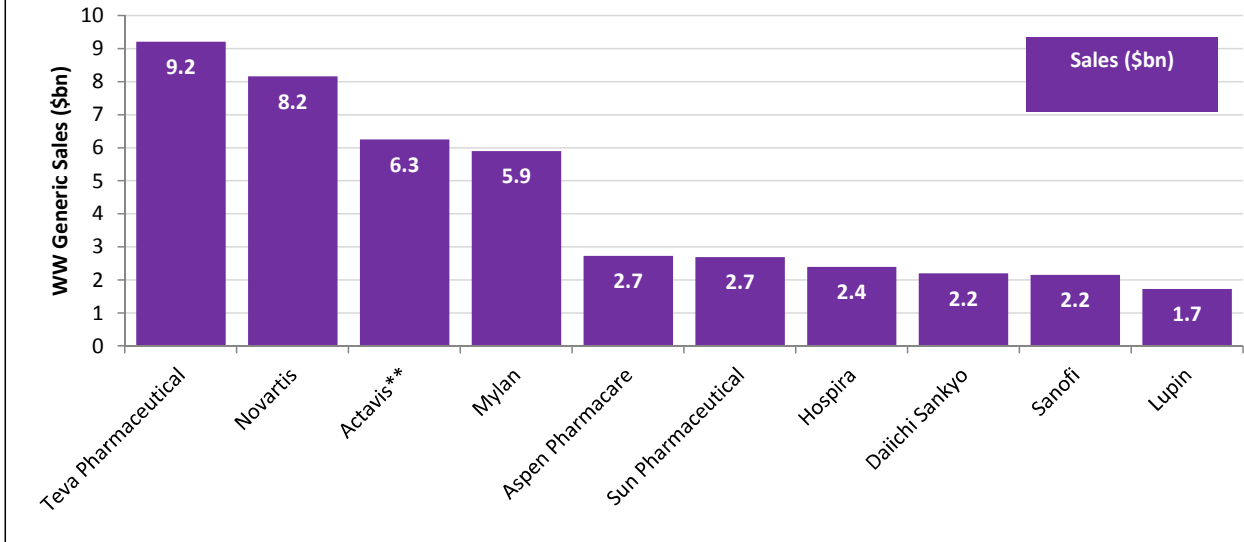
Note: Sales in 2013 based on company reported data. Excludes alliance revenue and royalties where possible. AbbVie's 2012 WW Prescription sales are pro forma.

Teva remains top generic company in 2013

EvaluatePharma® finds that, despite a 4% decline in sales, Teva continued to be the top manufacturer of generic products in 2013 with a total \$9.2bn or 13.4% of the total worldwide market. Over the course of the year, second place Novartis grew its generic business by 5% to \$8.2bn and recovered some of the sales it lost in 2012. Overall, the generic market expanded by 5% in 2013 (versus 2% in 2012) to \$68.5bn, based on EvaluatePharma® coverage*.

Global Ranking on Worldwide Generic Drug Sales in 2013

Source: EvaluatePharma® (1 JUN 2014)



Worldwide Unbranded Generic Drug Sales in 2013: Top 20 Companies

Company	WW Generic Sales (\$bn)			WW Market Share			Rank Chg. (+/-)
	2012	2013	% Growth	2012	2013	Chg. (+/-)	
1 Teva Pharmaceutical	9.6	9.2	-4%	14.6%	13.4%	-1.2pp	-
2 Novartis	7.8	8.2	+5%	11.8%	11.9%	+0.1pp	-
3 Actavis**	6.2	6.3	+0%	9.5%	9.1%	-0.4pp	-
4 Mylan	5.9	5.9	-1%	9.1%	8.6%	-0.5pp	-
5 Aspen Pharmacare	2.1	2.7	+33%	3.1%	4.0%	+0.8pp	+4
6 Sun Pharmaceutical	2.1	2.7	+26%	3.2%	3.9%	+0.7pp	+2
7 Hospira	2.2	2.4	+7%	3.4%	3.5%	+0.1pp	-1
8 Daiichi Sankyo	2.2	2.2	-2%	3.4%	3.2%	-0.2pp	-1
9 Sanofi	2.4	2.2	-9%	3.6%	3.1%	-0.5pp	-4
10 Lupin	1.6	1.7	+9%	2.4%	2.5%	+0.1pp	-
11 STADA Arzneimittel	1.6	1.6	+5%	2.4%	2.4%	+0.0pp	-
12 Fresenius	1.4	1.6	+14%	2.1%	2.3%	+0.2pp	+2
13 Cipla	1.2	1.6	+34%	1.8%	2.3%	+0.5pp	+3
14 Dr. Reddy's Laboratories	1.4	1.6	+12%	2.1%	2.3%	+0.2pp	-2
15 Valeant Pharmaceuticals	1.0	1.5	+42%	1.6%	2.1%	+0.6pp	+3
16 Apotex	1.4	1.4	+2%	2.1%	2.1%	-0.1pp	-3
17 Krka Group	1.2	1.3	+7%	1.9%	1.9%	+0.0pp	-2
18 Nichi-Iko Pharmaceutical	1.1	1.0	-10%	1.7%	1.5%	-0.2pp	-1
19 Par Pharmaceutical Companies	0.9	1.0	+6%	1.4%	1.4%	+0.0pp	+1
20 Zydus Cadila	0.9	0.9	+6%	1.3%	1.4%	+0.0pp	+1
Total Top 20	54.2	56.8	+5%	82.6%	82.9%	+0.3pp	
Other	11.4	11.7	+3%	17.4%	17.1%		
Total	65.6	68.5	+5%	100.0%	100.0%		

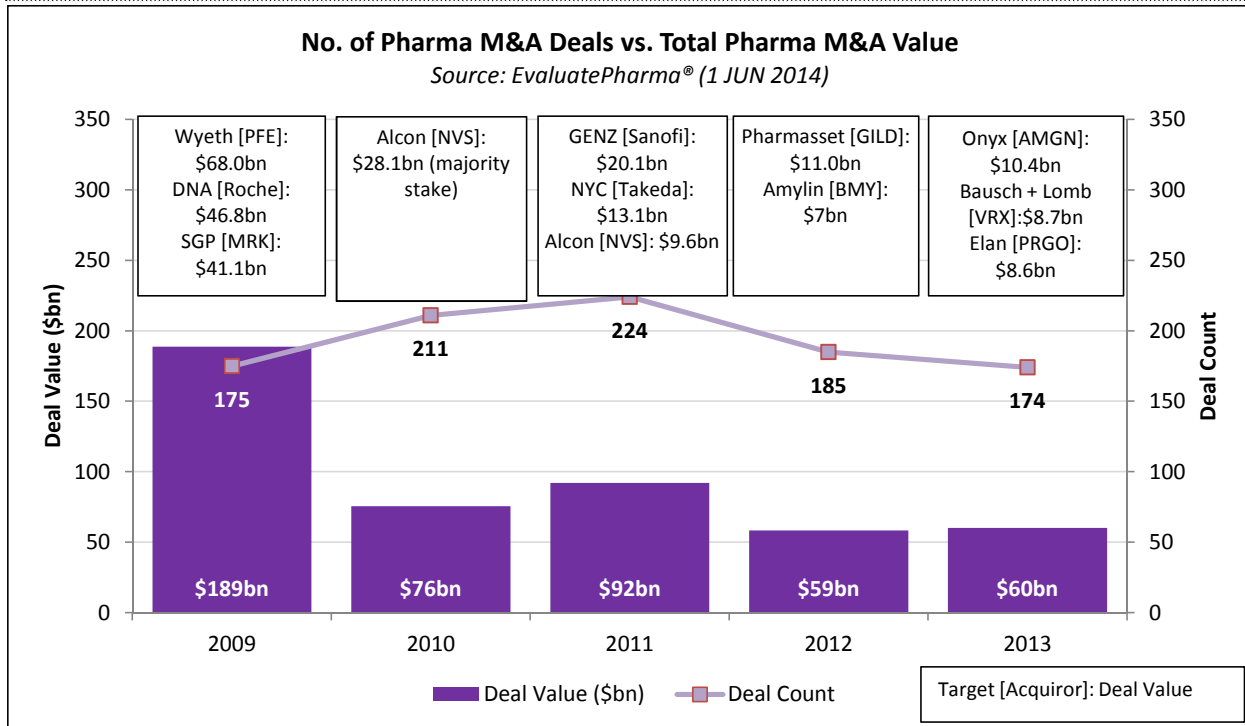
Source: EvaluatePharma® (1 JUN 2014)

Note: Sales in 2013 based on company reported data (Aspen Pharmacare, Sun Pharmaceutical Industries, Lupin, Cipla, Dr. Reddy's Laboratories, Apotex and Nichi-Iko based on forecast data for 2013).

* EvaluatePharma® coverage: 60 generic companies.

** Actavis sales consolidate both Actavis and Watson Pharmaceuticals in 2012.

Number of M&A transactions falls for second year running; value of transactions flat at \$60bn
EvaluatePharma® finds that total number of deals involving pharmaceuticals declined for the second consecutive year, falling 6% to 174 transactions in 2013; however, total deal value increased by 3% to \$60.0bn. The biggest deal of the year saw Amgen acquire Onyx Pharmaceuticals for \$10.4bn in October 2013.



Count of Pharma M&A Deals vs. Total Pharma M&A Value (2004-13)

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Deal Count	97	153	151	175	185	175	211	224	185	174
% Chg.		58%	-1%	16%	6%	-5%	21%	6%	-17%	-6%
Deal Value (\$bn)	90	70	96	87	71	189	76	92	59	60
% Chg.		-22%	37%	-9%	-19%	167%	-60%	22%	-37%	3%

Top 10 M&A Deals in 2013: Ranked on Deal Value

Target	Target Location	Target Focus	Acquiror	Completion Date	Deal Value (\$bn)
1 Onyx Pharmaceuticals	USA	Biotechnology	Amgen	01 Oct 13	10.4
2 Bausch + Lomb	USA	Specialty & MedTech	Valeant Pharmaceuticals	06 Aug 13	8.7
3 Elan	Ireland	Biotechnology	Perrigo Company	18 Dec 13	8.6
4 Warner Chilcott	Ireland	Specialty	Actavis	01 Oct 13	8.5
5 Agila Specialities*	India	Specialty & Generic	Mylan	04 Dec 13	1.8
6 Pearl Therapeutics	USA	Specialty	AstraZeneca	27 Jun 13	1.2
7 Merck & Co's API plant	The Netherlands	API	Aspen Pharmacare	01 Oct 13	1.0
8 Aragon Pharmaceuticals	USA	Biotechnology	Johnson & Johnson	19 Aug 13	1.0
9 MAP Pharmaceuticals	USA	Specialty	Allergan	01 Mar 13	1.0
10 Astex Pharmaceuticals	USA	Biotechnology	Otsuka Holdings	11 Oct 13	0.9
Other					17.2
Total					60.2

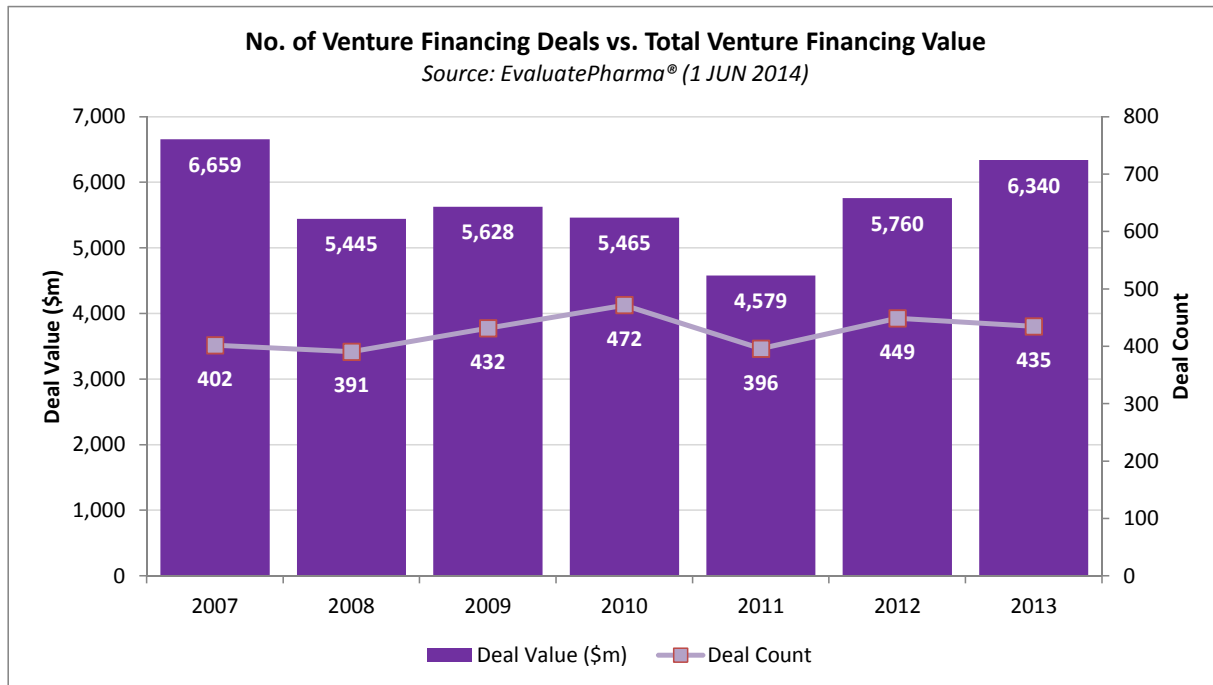
Source: EvaluatePharma® (1 JUN 2014)

Note: *A division of Strides Arcolab

Note: Analysis based on closing date of deal.

Value of venture financings increases by 10%

EvaluatePharma® finds that, although the total number of venture financing deals decreased in 2013, the total value invested increased by 10% to \$6.3bn. The value of venture financing is often viewed as an indicator of R&D investment in the private biotech sector. At \$6.3bn, it represents a mere 4.6% of the total pharmaceutical R&D expenditure of \$136.7bn in 2013. Of the top 10 deals, all involved biotechnology companies and all but two are located in the US.



Count of Pharma Venture Financing Deals vs. Total Pharma Venture Financing Value (2007-13)

Year	2007	2008	2009	2010	2011	2012	2013
Deal Count	402	391	432	472	396	449	435
% Chg.		-3%	10%	9%	-16%	13%	-3%
Deal Value (\$m)	6,659	5,445	5,628	5,465	4,579	5,760	6,340
% Chg.		-18%	3%	-3%	-16%	26%	10%

Top 10 Venture Financing Deals in 2013: Ranked on Deal Value

Company	Listed / Private	Country	Company Type	Financing Round	Date	Deal Value (\$m)
1 Intrexon	Listed	USA	Biotechnology	Series F	01 May 13	150
2 Juno Therapeutics	Private	USA	Biotechnology	Series A	04 Dec 13	120
3 Moderna Therapeutics	Private	USA	Biotechnology	Series B	20 Nov 13	110
4 Symphogen	Private	Denmark	Biotechnology	Series E	02 May 13	98
5 Ganymed Pharmaceuticals	Private	Germany	Biotechnology	Series E	18 Nov 13	64
6 PTC Therapeutics	Listed	USA	Biotechnology	Series G	07 Mar 13	60
7 Arrowhead Research	Listed	USA	Biotechnology	PIPE	14 Oct 13	60
8 Intra-Cellular Therapies	Listed	USA	Biotechnology	Undisclosed	03 Sep 13	60
9 Dicerna Pharmaceuticals	Listed	USA	Biotechnology	Series C	01 Aug 13	60
10 Trevena	Listed	USA	Biotechnology	Series C	09 May 13	60
Other						5,498
Total						6,340

Source: EvaluatePharma® (1 JUN 2014)

Note: Includes investments in pharmaceutical and biotech companies. Does not include pure-play genomics or medical device companies. Includes Private Investment in Public Equity (PIPE). Deal value represents the total disclosed value. Deal count includes all deals regardless of whether the value was disclosed.



Key Product Events Positively Impacting Shareholder Value in 2013

Favourable ruling from CHMP adds \$7.8bn to Biogen Idec's market capitalisation

The analysis below highlights the top 15 product events that positively impacted shareholder value on the day of the announcement (as measured by a change in market capitalisation) in 2013. Biogen Idec's share price increased 13%, adding \$7.8bn to the company's market capitalisation, following the CHMP's ruling that Tecfidera was eligible for ten years market exclusivity in the EU. Vertex's share price rose 62% in April after it announced favourable phase II results for its investigation treatment of cystic fibrosis, VX-661.

Company	Event Type	Product	Therapy Area	Date	Commentary on Share Price Change	% Share Price Change	Market Cap Change
1 Biogen Idec	EU Advisory Committee	Tecfidera	Central Nervous System	22 Nov 13	22 Nov: Company's MS treatment, Tecfidera, receives 10 years of market exclusivity in the EU after the CHMP rules that dimethyl fumarate in the drug is a new active substance.	+13%	+7,839
2 Vertex Pharmaceuticals	Phase II Trial Results	VX-661	Respiratory	19 Apr 13	18 Apr [post market]: Positive phase II data for its cystic fibrosis treatment, VX-661, combined with Kalydeco: statistically significant improvements in patient lung function.	+62%	+7,145
3 Roche	Broker Upgrade	RG7446	Oncology & Immunomodulators	22 May 13	22 May: Citigroup upgrades rating to "buy" from "neutral" and raises price target to CHF300 from CHF210, citing potential upside from the company's anti-PDL1 immunotherapeutics.	+3%	+6,920
4 Roche	Licensing Announcement	RG7227	Systemic Anti-infectives	15 Apr 13	15 Apr: Company signs a deal with Asclelis for its hepatitis C treatment, danoprevir, in which Asclelis will fund, develop, and manufacture danoprevir in Greater China.	+3%	+5,711
5 Roche	Company Strategy	Tamiflu	Systemic Anti-infectives	17 Jan 13	17 Jan: The FDA permits the company to sell reserve stock of its influenza treatment, Adult Tamiflu Capsules, in the hope that extra supplies of the flu treatment should meet US demand for the rest of this flu season.	+3%	+5,385
6 Bristol-Myers Squibb	Phase II Trial Results	ALD518/ BMS-945429	Musculoskeletal	28 Oct 13	28 Oct: Positive phase IIb data for its rheumatoid arthritis treatment, clazakizumab: drug meets its primary endpoint.	+7%	+5,351
7 Gilead Sciences	Results	Stribild	Systemic Anti-infectives	30 Oct 13	29 Oct [post market]: Company reports better-than-expected Q3'13 earnings and revenues, driven by higher sales of its HIV drugs, Stribild and Complera.	+5%	+5,099
8 Novartis	Results	Exjade	Various	23 Jan 13	23 Jan: FDA approval for chronic iron overload treatment, Exjade. 22 Jan: EU approval for meningitis B vaccine, Bexsero.	+3%	+5,034
9 GlaxoSmithKline	FDA Advisory Committee	Breo Ellipta	Respiratory	15 Apr 13	15 Apr: FDA releases briefing documents ahead of an advisory panel meeting: Breo's overall safety is consistent with similar drugs.	+4%	+4,633
10 Gilead Sciences	Results	Sovaldi	Systemic Anti-infectives	03 May 13	2 May [post market]: Company results in-line with expectations: lower sales of older HIV drugs offset by strong sales of new products. Positive interim phase II results for its hepatitis C treatments, sofosbuvir and ledipasvir.	+6%	+4,548
11 Merck & Co	Phase III Trial Results	Vytorin	Cardiovascular	12 Mar 13	12 Mar: Safety monitoring board recommends that a phase III trial of company's hyperlipidaemia treatment Vytorin should continue.	+3%	+4,170
12 Celgene	Phase III Trial Results	Revlimid	Oncology & Immunomodulators	11 Jul 13	11 Jul: Positive PIII data for Revlimid: meets primary endpoint of improving survival in newly diagnosed blood cancer patients, which potentially opening up the path for a wider use of the drug.	+8%	+4,103
13 GlaxoSmithKline	Phase III Trial Initiation	Arzerra	Oncology & Immunomodulators	04 Jul 13	4 Jul: Company and partner, Genmab, plan to initiate a phase III trial for ofatumumab for the treatment of pemphigus vulgaris, a rare skin autoimmune disorder.	+3%	+4,015
14 Sanofi	Competitor Announcement	Lantus	Endocrine	11 Feb 13	11 Feb: Novo Nordisk receives an FDA complete response letter for its insulin drugs, Tresiba and Ryzodeg, potential rivals to Sanofi's diabetes therapy, Lantus.	+3%	+4,001
15 GlaxoSmithKline	FDA Advisory Committee	Breo Ellipta	Respiratory	18 Apr 13	17 Apr [post market]: An FDA advisory committee recommends approval of company and partner Theravance's COPD treatment, Breo; final decision due 12 May 2013.	+3%	+3,873
Top 15 Total							+77,827

Source: EvaluatePharma® (1 JUN 2014)

Note: EvaluatePharma®'s EventAnalyzer contains a back catalogue of events which had the greatest impact on company valuations dating back to December 2007. Events can be viewed by Company, Product, Therapy Area and Peer Group to see instantly the impact of events on company valuation and the news flow driving share price movement. Events are categorised into 100 unique Event Type classifications, allowing you to track the market impact of key types of news flow (e.g. regulatory approvals, financial results, patent litigation, broker sentiment and competitor announcements, etc).



Key Product Events Negatively Impacting Shareholder Value in 2013

Novo Nordisk hit by unfavourable FDA response letter

The analysis below highlights the top 15 product events that negatively impacted shareholder value on the day of the announcement (as measured by a change in market capitalisation) in 2013. Novo Nordisk's share price fell 13%, wiping \$11.0bn of the company's market capitalisation, after an FDA complete response letter indicated additional cardiovascular data was required in order to approve Tresiba and Ryzodeg.

Company	Event Type	Product	Therapy Area	Date	Commentary on Share Price Change	% Share Price Change	Market Cap Change
1 Novo Nordisk	Complete Response Letter	Tresiba	Endocrine	11 Feb 13	11 Feb: Complete FDA response letter for Novo's insulin drugs, Tresiba and Ryzodeg: additional cardiovascular data required.	-13%	-11,021
2 Amgen	Results	Aranesp	Blood	24 Apr 13	23 Apr [post market]: Company's Q1'13 revenues miss expectations, hurt by lower sales of its anaemia drugs, Aranesp and Epogen. Piper Jaffray downgrades to "neutral" from "overweight" citing valuation.	-7%	-5,868
3 Allergan	Phase II Trial Results	AGN 150998	Sensory Organs	01 May 13	1 May: Negative phase II trial results for the company's macular degeneration treatment drug, MP0112: results do not support drug proceeding directly to phase III, potentially delaying its approval by up to two years.	-13%	-4,430
4 Merck & Co	FDA Filing	Odanacatib	Musculoskeletal	01 Feb 13	1 Feb: US filing of its key osteoporosis drug, odanacatib, delayed to 2014: additional safety and efficacy data required for ongoing phase III.	-3%	-4,317
5 Novo Nordisk	Phase III Trial Results	Victoza	Endocrine	18 Mar 13	18 Mar: Company's phase III results for obesity drug, liraglutide, disappoint: patients taking a higher dose of the drug achieve only slightly more weight loss than those taking a lower dose.	-4%	-4,244
6 Bayer	Litigation	Yasmin	Genito-Urinary	17 Apr 13	16 Apr: The US Court of Appeals rules that Bayer's patent for contraceptive pill, Yaz, is invalid, allowing Actavis to once again sell its generic version of the drug.	-4%	-3,976
7 Biogen Idec	Broker Downgrade	Tecfidera	Central Nervous System	12 Jun 13	12 Jun: Citigroup downgrades rating to "neutral" from "buy", citing concerns about regulatory protection for MS treatment, Tecfidera, in Europe, as well as inflated Rx numbers, and valuation.	-7%	-3,912
8 Gilead Sciences	Pricing Issues	Sovaldi	Systemic Anti-infectives	10 Dec 13	10 Dec: Shares fall on concern that the high price at which Gilead plans to sell its new hepatitis C pill Sovaldi will prompt pushback from payers.	-3%	-3,650
9 Allergan	Government Guidelines/ Contracts	Restasis	Sensory Organs	24 Jun 13	24 Jun: FDA draft guidance: proposes companies should be allowed to apply for marketing approval of generic versions of Allergan's key eye drug, Restasis, based on lab tests, not on human trials.	-12%	-3,294
10 GlaxoSmithKline	Government Guidelines/ Contracts	Seretide/ Advair	Respiratory	10 Sep 13	10 Sep: The FDA issues a draft guidance document setting out requirements for generic versions of GlaxoSmithKline's asthma drug, Advair, raising concerns for generic competition.	-2%	-3,084
11 Reckitt Benckiser	Company Statement	Suboxone	Central Nervous System	12 Jul 13	12 Jul: CVS Caremark removes the film version of Reckitt Benckiser's opioid-dependency drug, Suboxone, from its list of covered medications, raising fears about the treatment's future growth.	-5%	-2,765
12 Amgen	Safety Concerns	Kyprolis	Oncology & Immunomodulators	21 Nov 13	21 Nov: BofA-Merrill Lynch states that safety concerns are emerging for Amgen's multiple myeloma treatment, Kyprolis, following a management meeting with Celgene.	-3%	-2,496
13 Takeda	Product Abandoned	Fasiglifam	Endocrine	27 Dec 13	27 Dec: Company terminates the development of its key type 2 diabetes treatment, fasiglifam (TAK-875), after the drug show clears signs of causing liver toxicity in some patients.	-5%	-2,140
14 ARIAD Pharmaceuticals	Side Effect Risk/ Negative Label	Iclusig	Oncology & Immunomodulators	09 Oct 13	9 Oct: FDA places a hold on new patient enrolment in all clinical trials for the company's approved leukaemia drug, Iclusig, after two-year follow-up data shows that the drug causes more side effects than previously reported.	-66%	-2,094
15 Novo Nordisk	Government Guidelines/ Contracts	Victoza	Endocrine	03 Sep 13	3 Sep: Company loses two contracts to supply US pharmacy benefit manager, Express Scripts, with its diabetes drug, Victoza, and insulin Novolog, potentially reducing Novo Nordisk's EPS by 3% in 2014.	-3%	-2,074
Top 15 Total							-59,365

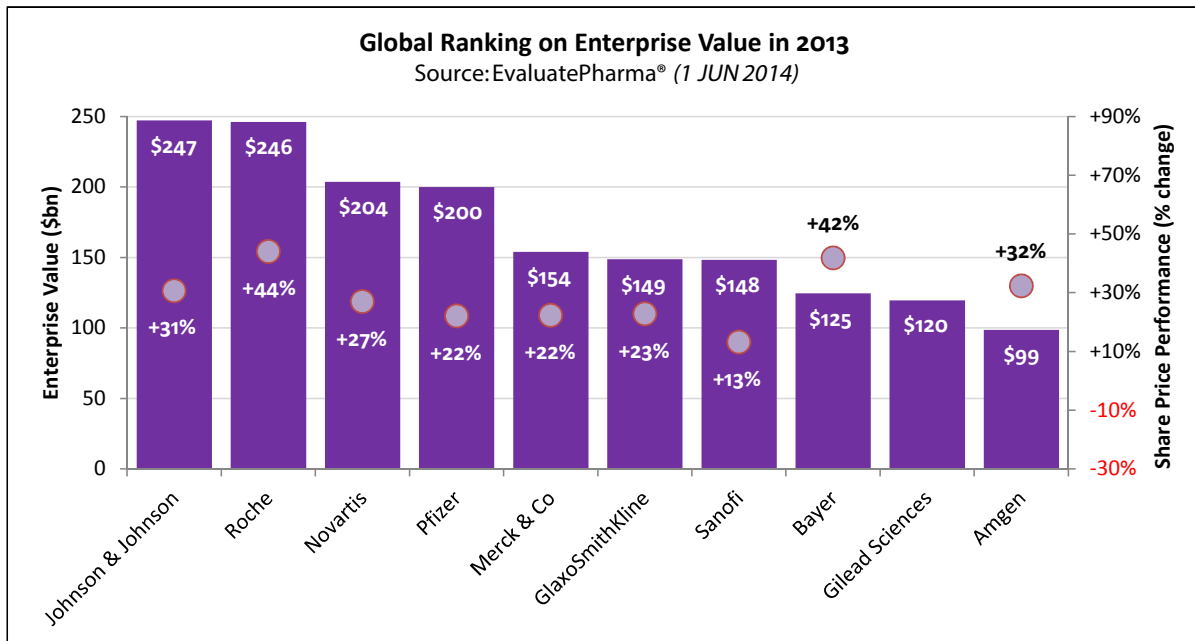
Source: EvaluatePharma® (1 JUN 2014)

Note: EvaluatePharma®'s EventAnalyzer contains a back catalogue of events which had the greatest impact on company valuations dating back to December 2007. Events can be viewed by Company, Product, Therapy Area and Peer Group to see instantly the impact of events on company valuation and the news flow driving share price movement. Events are categorised into 100 unique Event Type classifications, allowing you to track the market impact of key types of news flow (e.g. regulatory approvals, financial results, patent litigation, broker sentiment and competitor announcements, etc).



Johnson & Johnson number one in 2013 enterprise value rankings

EvaluatePharma® finds that Johnson & Johnson is top of the enterprise value table after increasing 30% over the year to \$247bn. Gilead Sciences continues to impress investors and its enterprise value almost doubled as its share price increased a massive 105%. Much of this growth can be attributed to the company's recently launched hepatitis C therapy, Sovaldi, which has received a number of upward revisions to its consensus sales forecast over the course of 2013. Overall, the top 20 companies' share prices performed well with an average 40% gain over the previous year.



Top 20 Companies in 2013: Ranked by Enterprise Value (based on valuation on 31 DEC 13)

Company	Enterprise Value (\$bn)			Share Price (\$ ADR)			Enterprise Value Ranking		
	2012	2013	% Growth	2012	2013	% Growth	2012	2013	Chg. (+/-)
1 Johnson & Johnson	189.8	247.3	+30%	70.10	91.59	+31%	1	1	-
2 Roche	183.5	246.2	+34%	23.65	34.06	+44%	3	2	+1
3 Novartis	164.7	203.7	+24%	63.30	80.38	+27%	4	3	+1
4 Pfizer	187.6	200.1	+7%	25.08	30.63	+22%	2	4	-2
5 Merck & Co	128.3	154.1	+20%	40.94	50.05	+22%	6	5	+1
6 GlaxoSmithKline	128.3	148.9	+16%	43.47	53.39	+23%	7	6	+1
7 Sanofi	134.6	148.4	+10%	47.38	53.63	+13%	5	7	-2
8 Bayer	87.1	124.6	+43%	71.89	101.95	+42%	9	8	+1
9 Gilead Sciences	62.1	119.7	+93%	36.72	75.10	+105%	13	9	+4
10 Amgen	67.7	98.8	+46%	86.20	114.08	+32%	12	10	+2
11 Novo Nordisk	84.5	93.8	+11%	31.43	36.27	+15%	10	11	-1
12 Bristol-Myers Squibb	57.9	91.5	+58%	32.59	53.15	+63%	16	12	+4
13 AbbVie	61.6	88.7	+44%	34.16	52.81	+55%	14	13	+1
14 AstraZeneca	60.7	75.0	+23%	47.27	59.37	+26%	15	14	+1
15 Celgene	32.1	68.3	+113%	78.47	168.97	+115%	33	15	+18
16 Biogen Idec	34.1	65.4	+92%	146.37	279.57	+91%	30	16	+14
17 Reckitt Benckiser	49.8	61.0	+22%	12.82	16.09	+26%	18	17	+1
18 Abbott Laboratories	108.6	57.8	-47%	65.50	38.33	-41%	8	18	-10
19 Eli Lilly	56.3	56.8	+1%	49.32	51.00	+3%	17	19	-2
20 Valeant Pharmaceuticals	28.3	55.9	+98%	59.77	117.40	+96%	39	20	+19
Total Top 20	1,907.5	2,406.0	+26%		avg.	+40%			
					S&P 500:	+30%			

Source: EvaluatePharma® (1 JUN 2014)

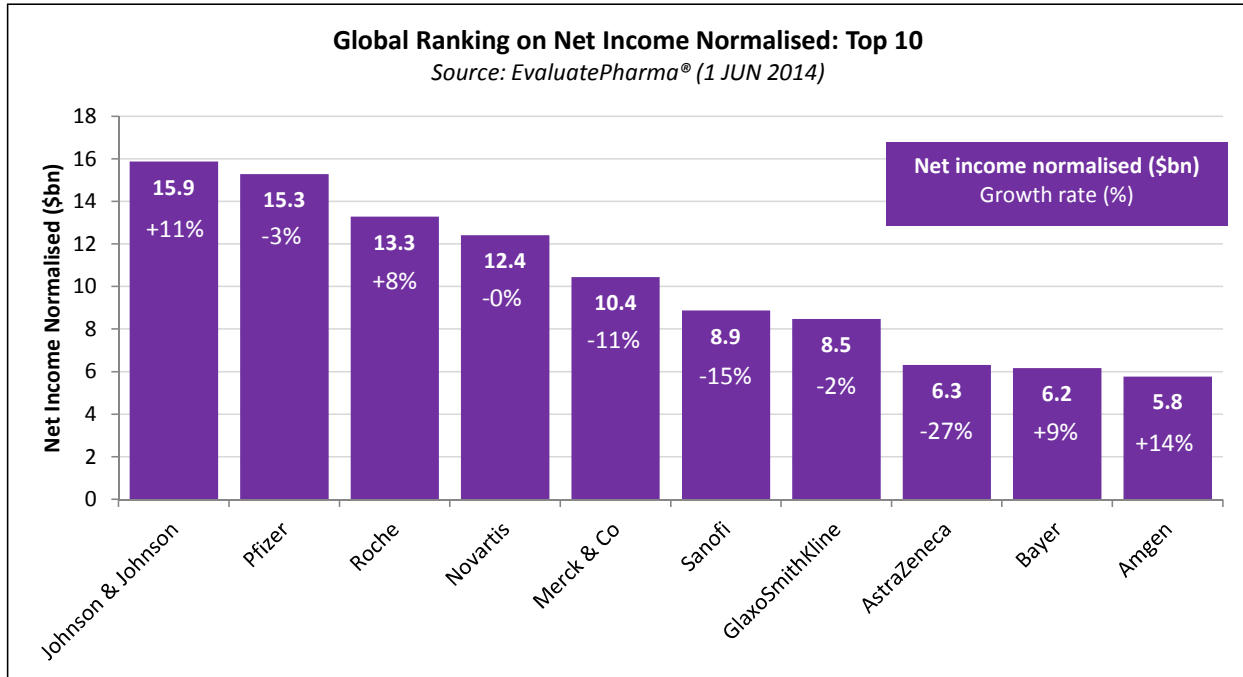
NOTE: Enterprise Value = Market Capitalisation + Debt - Cash.



Net Income in 2013: Top 20 Companies

Johnson & Johnson becomes number one in terms of net income in 2013

EvaluatePharma® finds that Johnson & Johnson's reported the industry's largest net income (normalised) following a 11% increase over the period to \$15.9bn. Novo Nordisk's 21% growth in net income was the largest in the top 20 and was accompanied by a 2.7 percentage point improvement in its net income margin to 30.1%. Amongst its peers, AstraZeneca's net income (normalised) decreased the most to \$6.3bn and resulted in a 6.2 percentage point decrease in its net income margin to 24.6%.



Net Income in 2013: Top 20 Companies

Company	Net Income Normalised (\$bn)			Net Margin		
	2012	2013	% Growth	2012	2013	Chg. (+/-)
1 Johnson & Johnson	14.3	15.9	+11%	21.3%	22.3%	+0.9pp
2 Pfizer	15.7	15.3	-3%	28.8%	29.7%	+0.9pp
3 Roche	12.3	13.3	+8%	25.3%	26.3%	+1.0pp
4 Novartis	12.5	12.4	-0%	21.7%	21.1%	-0.6pp
5 Merck & Co	11.7	10.4	-11%	24.8%	23.7%	-1.1pp
6 Sanofi	10.4	8.9	-15%	23.2%	20.3%	-2.9pp
7 GlaxoSmithKline	8.7	8.5	-2%	20.7%	20.5%	-0.2pp
8 AstraZeneca	8.6	6.3	-27%	30.8%	24.6%	-6.2pp
9 Bayer	5.6	6.2	+9%	11.0%	11.6%	+0.5pp
10 Amgen	5.1	5.8	+14%	29.3%	30.9%	+1.6pp
11 AbbVie	6.1	5.1	-17%	33.2%	27.0%	-6.3pp
12 Eli Lilly	3.8	4.5	+19%	16.7%	19.5%	+2.7pp
13 Novo Nordisk	3.7	4.5	+21%	27.5%	30.1%	+2.7pp
14 Teva Pharmaceutical Industries	4.7	4.3	-9%	23.0%	20.9%	-2.0pp
15 Gilead Sciences	2.7	3.3	+19%	28.2%	29.1%	+0.9pp
16 Abbott Laboratories	2.8	3.2	+15%	12.9%	14.6%	+1.7pp
17 Reckitt Benckiser	3.1	3.1	+1%	20.2%	19.6%	-0.6pp
18 Bristol-Myers Squibb	3.3	3.0	-8%	18.6%	18.4%	-0.1pp
19 Baxter International	2.5	2.6	+2%	17.7%	16.8%	-0.9pp
20 Merck KGaA	2.1	2.5	+19%	14.8%	17.2%	+2.4pp
Top 20	139.7	138.9	-1%	23.7%	23.2%	Weighted Avg.

Source: EvaluatePharma® (1 JUN 2014)

Note: Excludes companies where majority of sales are derived from non-pharma sources.

Note: AbbVie & Abbott's 2012 results are pro forma.

Measure: Net Income (normalised)

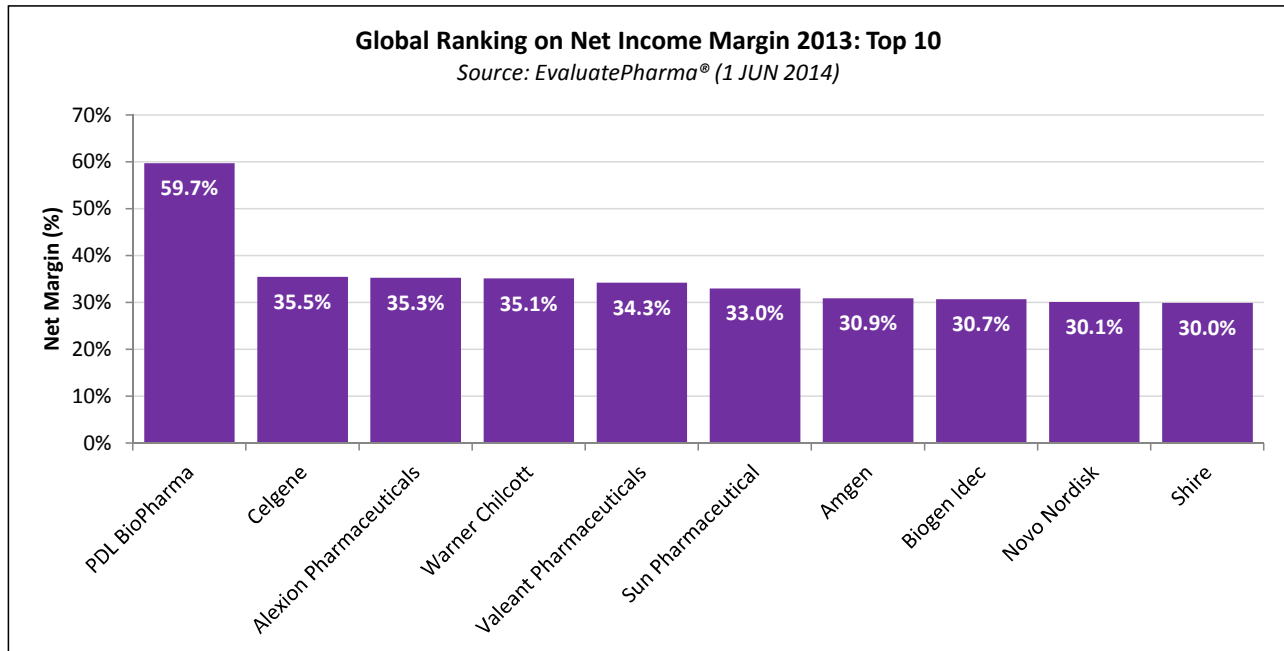
The accounting profit a company made during 2013, adjusted to exclude any one-off items, such as restructuring charges and disposal gains/losses.



Net Income Margin in 2013: Top 20 Companies

PDL BioPharma continues to be the most profitable pharma/biotech company

EvaluatePharma® finds that, for the sixth year running, PDL BioPharma achieved the highest net income normalised margin at 59.7%, an increase of 3.2 percentage points over the previous year. PDL was the first company to spin-out its R&D unit (Facet Biotech) to become a listed royalty company with no active R&D operations.



Net Margin in 2013: Top 20 Companies

Company	Net Margin			Net Income - Normalised		
	2012	2013	Chg. (+/-)	2012	2013	% Growth
1 PDL BioPharma	56.5%	59.7%	+3.2pp	212	265	+25.0%
2 Celgene	36.0%	35.5%	-0.5pp	1,982	2,307	+16.4%
3 Alexion Pharmaceuticals	32.7%	35.3%	+2.6pp	371	548	+47.7%
4 Warner Chilcott	40.3%	35.1%	-5.2pp	1,024	607	-40.8%
5 Valeant Pharmaceuticals	38.0%	34.3%	-3.8pp	1,324	1,977	+49.4%
6 Sun Pharmaceutical	33.3%	33.0%	-0.2pp	698	880	+26.1%
7 Amgen	29.3%	30.9%	+1.6pp	5,060	5,780	+14.2%
8 Biogen Idec	28.3%	30.7%	+2.4pp	1,561	2,129	+36.4%
9 Novo Nordisk	27.5%	30.1%	+2.7pp	3,702	4,486	+21.2%
10 Shire	26.5%	30.0%	+3.5pp	1,198	1,478	+23.4%
11 Pfizer	28.8%	29.7%	+0.9pp	15,749	15,288	-2.9%
12 Gilead Sciences	28.2%	29.1%	+0.9pp	2,737	3,265	+19.3%
13 Roche	25.3%	26.3%	+1.0pp	12,302	13,295	+8.1%
14 Actelion	21.5%	26.0%	+4.5pp	396	500	+26.2%
15 AstraZeneca	30.8%	24.6%	-6.2pp	8,605	6,319	-26.6%
16 CSL	23.9%	24.2%	+0.2pp	1,249	1,210	-3.1%
17 Merck & Co	24.8%	23.7%	-1.1pp	11,743	10,443	-11.1%
18 Allergan	22.0%	22.8%	+0.9pp	1,241	1,439	+16.0%
19 Merz	22.5%	22.5%	-0.0pp	285	295	+3.6%
20 Johnson & Johnson	21.3%	22.3%	+0.9pp	14,345	15,876	+10.7%

Source: EvaluatePharma® (1 JUN 2014)

Measure: Net Margin

A ratio measuring company profitability based on net income normalised divided by total revenue.

Note: Analysis only includes companies with two consecutive years of profit and with 2013 profit in excess of \$50m. CSL, Merz and Sun Pharmaceutical are based on forecast data for 2013. Actavis acquired Warner Chilcott in OCT 2013.



2013: Top 50 Selling Products in the World

Humira the world's largest selling product in 2013

EvaluatePharma® finds Humira was the largest selling product worldwide in 2013, with sales of over \$11.0bn, representing a 15% increase over the year. Bayer's VEGFr kinase inhibitor, Eylea, was the fastest growing product in the top 50, with sales of \$2.0bn in 2013, representing an increase of 128%.

Product	Generic Name	Company	Pharmacological Class	WW Product Sales (\$bn)			Products	
				2012	2013	% Growth	Age (Yrs)	Technology
1 Humira	adalimumab	AbbVie + Eisai	Anti-tumour necrosis factor alpha MAb	9,616	11,014	+15%	11.4	Monoclonal antibody
2 Enbrel	etanercept	Amgen + Pfizer + Takeda	Tumour necrosis factor alpha inhibitor	8,496	8,778	+3%	15.6	Recombinant product
3 Remicade	infliximab	JNJ + Merck & Co + Mitsubishi Tanabe	Anti-tumour necrosis factor alpha MAb	7,634	8,367	+10%	15.8	Monoclonal antibody
4 Seretide/Advair	fluticasone propionate; salmeterol xinafoate	GSK + Almirall + Faes Farma	Beta 2 adrenoreceptor agonist & corticosteroid	8,088	8,341	+3%	15.7	Small molecule chemistry
5 Lantus	insulin glargine recombinant	Sanofi	Insulin	6,378	7,592	+19%	13.9	Recombinant product
6 Rituxan	rituximab	Roche	Anti-CD20 MAb	7,155	7,503	+5%	16.5	Monoclonal antibody
7 Avastin	bevacizumab	Roche	Anti-VEGF MAb	6,149	6,751	+10%	10.3	Monoclonal antibody
8 Herceptin	trastuzumab	Roche	Anti-HER2 (ErbB-2) MAb	6,283	6,562	+4%	15.7	Monoclonal antibody
9 Januvia/Janumet	sitagliptin phosphate	Merck & Co + Daewoong + Ono + Almirall	Dipeptidyl peptidase IV inhibitor	6,231	6,254	+0%	7.7	Small molecule chemistry
10 Crestor	rosuvastatin calcium	AstraZeneca + Shionogi + Chiesi	Statin/ HMG CoA reductase inhibitor	6,780	6,105	-10%	11.3	Small molecule chemistry
11 Abilify	aripiprazole	Otsuka Holdings	5-HT1A & dopamine D2 partial agonist & 5-HT2 antagonist	5,305	5,749	+8%	11.5	Small molecule chemistry
12 Cymbalta	duloxetine hydrochloride	Eli Lilly + Shionogi	5-HT & norepinephrine reuptake inhibitor	5,111	5,198	+2%	9.8	Small molecule chemistry
13 Spiriva	tiotropium bromide monohydrate	Boehringer Ingelheim	Long-acting muscarinic antagonist (LAMA)	4,580	4,719	+3%	12.0	Small molecule chemistry
14 Gleevec	imatinib mesylate	Novartis	Tyrosine kinase inhibitor	4,675	4,693	+0%	13.0	Small molecule chemistry
15 Lyrica	pregabalin	Pfizer + Jeil	Alpha 2 delta ligand	4,199	4,636	+10%	9.7	Small molecule chemistry
16 Nexium	esomeprazole magnesium	AstraZeneca + Daiichi Sankyo + Daewoong	Proton pump inhibitor	4,221	4,431	+5%	13.8	Chiral chemistry
17 Neulasta	pegfilgrastim	Amgen	Granulocyte colony-stimulating factor (G-CSF)	4,092	4,392	+7%	12.1	Recombinant product
18 Copaxone	glatiramer acetate	Sanofi + Teva	MS agent	4,027	4,328	+7%	17.4	Small molecule chemistry
19 Revlimid	lenalidomide	Celgene + Pharmstandard	Immunomodulator	3,779	4,302	+14%	8.4	Small molecule chemistry
20 Lucentis	ranibizumab	Novartis + Roche	Anti-VEGF MAb	3,978	4,206	+6%	7.9	Monoclonal antibody
21 Prevnar 13	pneumococcal vaccine	Pfizer + Daewoong	Pneumococcal vaccine	3,781	3,763	-0%	4.4	Bioengineered vaccine
22 Atripla	efavirenz; emtricitabine; tenofovir disoproxil fumarate	Gilead Sciences	Nucleoside & non-nucleoside reverse transcriptase inhibitor (NRTI & NNRTI)	3,574	3,648	+2%	7.9	Small molecule chemistry
23 Diovan	valsartan	Novartis + Ipsen	Angiotensin II receptor antagonist	4,440	3,534	-20%	17.7	Small molecule chemistry
24 Symbicort Turbuhaler	budesonide; formoterol fumarate dihydrate	AstraZeneca + Sigma-Tau	Corticosteroid & Beta 2 adrenoreceptor agonist	3,212	3,502	+9%	13.7	Small molecule chemistry
25 Celebrex/Celecox	celecoxib	Pfizer + Astellas Pharma	COX-2 inhibitor	3,171	3,360	+6%	15.3	Small molecule chemistry
26 Epogen/Procrit	epoetin alfa	Amgen + JNJ + Kyowa Hakko Kirin	Erythropoietin	3,450	3,349	-3%	24.9	Recombinant product
27 Truvada	emtricitabine; tenofovir disoproxil fumarate	Gilead Sciences + Torii Pharmaceuticals	Nucleoside reverse transcriptase inhibitor	3,321	3,270	-2%	9.8	Small molecule chemistry
28 Micardis	telmisartan	Boehringer Ingelheim + Astellas + Bayer	Angiotensin II receptor antagonist	3,400	3,046	-10%	15.5	Small molecule chemistry
29 Avonex	interferon beta-1a	Biogen Idec	Interferon beta	2,913	3,005	+3%	18.0	Recombinant product
30 NovoRapid	insulin aspart	Novo Nordisk	Insulin	2,711	3,001	+11%	14.7	Recombinant product
31 Lipitor	atorvastatin calcium	Pfizer + Astellas Pharma + Jeil	Statin/ HMG CoA reductase inhibitor	4,772	2,915	-39%	17.3	Chiral chemistry
32 Alimta	pemetrexed disodium	Eli Lilly	Thymidylate synthase inhibitor	2,594	2,703	+4%	10.3	Small molecule chemistry
33 Zetia	ezetimibe	Merck & Co	Cholesterol absorption inhibitor	2,567	2,658	+4%	11.5	Small molecule chemistry
34 Plavix	clopidogrel bisulfate	Sanofi + Bristol-Myers Squibb	Platelet aggregation inhibitor	5,106	2,613	-49%	16.3	Small molecule chemistry
35 Humalog	insulin lispro recombinant	Eli Lilly	Insulin	2,396	2,611	+9%	18.0	Recombinant product
36 Velcade	bortezomib	JNJ + Takeda + Pharmstandard	Proteasome inhibitor	2,382	2,610	+10%	11.0	Small molecule chemistry
37 Rebif	interferon beta-1a	Merck KGaA + Pharmstandard	Interferon beta	2,433	2,513	+3%	16.4	Recombinant product
38 Aranesp	darbepoetin alfa	Amgen + Kyowa Hakko Kirin	Erythropoietin	2,743	2,470	-10%	12.9	Recombinant product
39 Benicar/Olmetec	olmesartan medoxomil	Daiichi Sankyo + Daewoong	Angiotensin II receptor antagonist	2,544	2,408	-5%	12.0	Small molecule chemistry
40 Lovenox	enoxaparin sodium	Sanofi	Heparin, low molecular weight (LMWH)	2,434	2,262	-7%	26.4	Miscellaneous
41 Cialis	tadalafil	Eli Lilly + Nippon Shinyaku	Phosphodiesterase V inhibitor	1,968	2,202	+12%	11.3	Small molecule chemistry
42 Botox	onabotulinumtoxinA	Allergan + GlaxoSmithKline	Botulinum toxin	1,953	2,201	+13%	24.4	Recombinant product
43 Gardasil	human papillomavirus (HPV) vaccine	Merck & Co + Sanofi Pasteur MSD + CSL	Human papillomavirus vaccine	1,954	2,169	+11%	8.0	Bioengineered vaccine
44 Gammagard Liquid ¹	immune globulin (human)	Baxter International	Immunoglobulin	2,069	2,118	+2%	8.7	Protein extract
45 Privigen ¹	immune globulin (human)	CSL	Immunoglobulin	2,082	2,100	+1%	6.3	Protein extract
46 Victoza	liraglutide	Novo Nordisk	Glucagon-like peptide 1 (GLP-1) agonist	1,640	2,072	+26%	4.9	Recombinant product
47 Levemir	insulin detemir	Novo Nordisk	Insulin	1,690	2,057	+22%	10.2	Recombinant product
48 Eylea	afibercept	Bayer + Santen	VEGFr kinase inhibitor	895	2,039	+128%	2.5	Recombinant product
49 OxyContin	oxycodone hydrochloride	Purdue Pharma + Shionogi	Opioid agonist	2,473	2,006	-19%	18.5	Small molecule chemistry
50 Advate	factor VIII (procoagulant)	Baxter International	Factor VIII	1,888	1,969	+4%	10.7	Recombinant product
Total				199,333	204,097	+2%	13.0	

Source: EvaluatePharma® (1 JUN 2014)

Note: Sales represent company reported sales where available, otherwise based on an average of equity analyst estimates. 1. Includes entire Immunoglobulin/Vlg sales for company.

2013: Top 50 Selling Products in the USA

Humira top selling drug in the US

EvaluatePharma® finds Humira was the largest selling product in the USA in 2013 following a 20% increase in sales to \$5.2bn. Sanofi's Lantus also performed well increasing 25% to \$5.0bn. In contrast to last year, when total sales of the top 50 products in the US decreased 2%, this year sales increased 9% to \$107.4bn.

Product	Generic Name	Company	Pharmacological Class	USA Product Sales (\$bn)			USA Age (Yrs)	Company Strategy
				2012	2013	% Growth		
1 Humira	adalimumab	AbbVie	Anti-tumour necrosis factor alpha MAb	4,376	5,236	+20%	11.4	Company acquisition
2 Lantus	insulin glargine recombinant	Sanofi	Insulin	3,969	4,978	+25%	14.1	Company acquisition
3 Abilify	aripiprazole	Otsuka Holdings	5-HT1A & dopamine D2 partial agonist & 5-HT2 antagonist	4,066	4,549	+12%	11.5	Organic
4 Seretide/Advair	fluticasone propionate; salmeterol xinafoate	GlaxoSmithKline	Beta 2 adrenoceptor agonist & corticosteroid	4,011	4,332	+8%	13.8	Organic
5 Enbrel	etanercept	Amgen	Tumour necrosis factor alpha inhibitor	3,967	4,256	+7%	15.6	Company acquisition
6 Cymbalta	duloxetine hydrochloride	Eli Lilly	5-HT & norepinephrine reuptake inhibitor	3,918	3,961	+1%	9.8	Organic
7 Remicade	infliximab	Johnson & Johnson	Anti-tumour necrosis factor alpha MAb	3,583	3,891	+9%	15.8	Company acquisition
8 Rituxan	rituximab	Roche	Anti-CD20 MAb	3,320	3,594	+8%	16.5	Company acquisition
9 Neulasta	pegfilgrastim	Amgen	Granulocyte colony-stimulating factor (G-CSF)	3,207	3,499	+9%	12.3	Joint venture
10 Copaxone	glatiramer acetate	Teva Pharmaceutical Industries	MS agent	2,900	3,200	+10%	17.4	In-licensed
11 Januvia/Janumet	sitagliptin phosphate	Merck & Co	DPP-IV inhibitor	3,001	2,946	-2%	0.0	Organic
12 Crestor	rosuvastatin calcium	AstraZeneca	Statin/ HMG CoA reductase inhibitor	3,164	2,912	-8%	10.8	In-licensed
13 Avastin	bevacizumab	Roche	Anti-VEGF MAb	2,640	2,780	+5%	10.3	Company acquisition
14 Epogen/Procrit	epoetin alfa	Amgen + JNJ	Erythropoietin	2,746	2,748	+0%	0.0	Joint venture
15 Revlimid	lenalidomide	Celgene	Immunomodulator	2,150	2,489	+16%	8.4	Organic
16 Spiriva	tiotropium bromide monohydrate	Boehringer Ingelheim	Long-acting muscarinic antagonist	2,300	2,416	+5%	10.3	Organic
17 Atripla	efavirenz; emtricitabine; tenofovir disoproxil fumarate	Gilead Sciences	Nucleoside & non-nucleoside reverse transcriptase inhibitor	2,253	2,356	+5%	7.9	Joint venture
18 Nexium	esomeprazole magnesium	AstraZeneca	Proton pump inhibitor	2,272	2,123	-7%	13.3	Organic
19 Lyrica	pregabalin	Pfizer	Alpha 2 delta ligand	1,672	1,963	+17%	9.4	Company acquisition
20 Gleevec	imatinib mesylate	Novartis	Tyrosine kinase inhibitor	1,698	1,939	+14%	13.1	Organic
21 Celebrex	celecoxib	Pfizer	COX-2 inhibitor	1,745	1,933	+11%	15.4	Company acquisition
22 Herceptin	trastuzumab	Roche	Anti-HER2 (ErbB-2) MAb	1,774	1,929	+9%	15.7	Company acquisition
23 Avonex	interferon beta-1a	Biogen Idec	Interferon beta	1,794	1,902	+6%	18.0	Organic
24 Lucentis	ranibizumab	Roche	Anti-VEGF MAb	1,580	1,823	+15%	7.9	Company acquisition
25 Prevnar 13	pneumococcal vaccine	Pfizer	Pneumococcal vaccine	1,887	1,804	-4%	4.3	Company acquisition
26 NovoLog/NovoRapid	insulin aspart	Novo Nordisk	Insulin	1,560	1,773	+14%	14.0	Organic
27 Diovan	valsartan	Novartis	Angiotensin II receptor antagonist	2,087	1,679	-20%	17.4	Organic
28 Truvada	emtricitabine; tenofovir disoproxil fumarate	Gilead Sciences	Nucleoside reverse transcriptase inhibitor (NRTI)	1,613	1,570	-3%	9.8	Company acquisition
29 Namenda	mementine hydrochloride	Forest Laboratories	N-methyl-D-aspartate (NMDA) receptor antagonist	1,521	1,537	+1%	10.6	In-licensed
30 Humalog	insulin lispro recombinant	Eli Lilly	Insulin	1,371	1,521	+11%	18.0	Organic
31 Zetia	ezetimibe	Merck & Co	Cholesterol absorption inhibitor	1,332	1,454	+9%	11.6	Company acquisition
32 Gammagard Liquid ¹	immune globulin (human)	Baxter International	Immunoglobulin	1,367	1,451	+6%	9.1	Organic
33 Eylea	aflibercept	Regeneron Pharmaceuticals	VEGF _r kinase inhibitor	838	1,409	+68%	2.5	Organic
34 Victoza	liraglutide	Novo Nordisk	Glucagon-like peptide 1 agonist	1,024	1,343	+31%	4.3	In-licensed
35 Gardasil	human papillomavirus (HPV) vaccine	Merck & Co	Human papillomavirus vaccine	1,113	1,295	+16%	8.0	In-licensed
36 Rebif	interferon beta-1a	Merck KGaA	Interferon beta	1,264	1,270	+1%	12.2	Company acquisition
37 Symbicort Turbuhaler	budesonide; formoterol fumarate dihydrate	AstraZeneca	Beta 2 adrenoceptor agonist & corticosteroid	1,003	1,233	+23%	7.9	Organic
38 Xgeva/Prolia	denosumab	Amgen	Anti-RANKL MAb	936	1,226	+31%	0.0	Organic
39 Levemir	insulin detemir	Novo Nordisk	Insulin	914	1,215	+33%	9.0	Organic
40 Botox	onabotulinumtoxinA	Allergan	Botulinum toxin	1,067	1,212	+14%	24.4	Product acquisition
41 Alimta	pemetrexed disodium	Eli Lilly	Thymidylate synthase inhibitor	1,122	1,209	+8%	10.3	In-licensed
42 Vyvanse	lisdexamfetamine dimesylate	Shire	Psychostimulant	1,030	1,194	+16%	7.3	Company acquisition
43 Neupogen	filgrastim	Amgen	Granulocyte colony-stimulating factor	1,007	1,169	+16%	23.3	Joint venture
44 Viagra	sildenafil citrate	Pfizer	Phosphodiesterase V inhibitor	1,135	1,132	-0%	16.2	Organic
45 AndroGel	testosterone	AbbVie	Androgen	1,152	1,035	-10%	14.3	In-licensed
46 Gilenya	fingolimod hydrochloride	Novartis	Sphingosine-1-phosphate receptor modulator	727	1,023	+41%	3.7	In-licensed
47 Premarin	estrogens, conjugated	Pfizer	Oestrogen agonist	977	1,001	+2%	72.1	Company acquisition
48 Stelara	ustekinumab	Johnson & Johnson	Anti-interleukin-12 & interleukin-23 MAb	627	957	+53%	4.7	Company acquisition
49 Velcade	bortezomib	Takeda	Proteasome inhibitor	882	950	+8%	11.1	Company acquisition
50 Cialis	tadalafil	Eli Lilly	Phosphodiesterase V inhibitor	782	943	+21%	10.5	Company acquisition
Total				98,443	107,359	+9%	12.3	

Source: EvaluatePharma® (1 JUN 2014)

Note: Sales represent company reported sales where available, otherwise based on an average of equity analyst estimates. EvaluatePharma® endeavours to treat the sales from patent protected new formulations of existing products as distinct entities where possible. Epogen, Aranesp, Neupogen and Neulasta developed via Kirin-Amgen joint venture.

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For general inquires about this report:
Christine Lindgren
Tel: 1-617-573-9458
Email: christine.lindgren@evaluategroup.com



Evaluate – Headquarters – Evaluate Ltd, 11-29 Fashion Street, London E1 6PX United Kingdom

Tel: +44 (0)20 7377 0800 – Fax: +44 (0)20 7539 1801

Evaluate – North America – EvaluatePharma USA, Inc., 15 Broad Street, Suite 401, Boston, MA 02109 USA

Tel: 1-617 573-9450 – Fax: 1-617 573-9542

Evaluate – Japan – EvaluatePharma Japan KK, Tokyo, Japan

Tel: +81 (0) 80 1164 4754

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