EvaluatePharma®

World Preview 2020, Outlook to 2026

13th Edition — July 2020

Evaluate

Welcome to the EvaluatePharma® World Preview 2020, Outlook to 2026

The thirteenth edition of EvaluatePharma's World Preview brings together our most popular analyses to provide top-level insights into the expected performance of the biopharma industry between now and 2026, based on EvaluatePharma's coverage of the world's leading pharmaceutical and biotech companies.

This year's World Preview highlights trends in prescription drug sales, patent risk, R&D spend, global brand sales and market performance by therapy area. Also included are our latest analyses on innovation, risk and return, using data from EvaluatePharma Vision, as well as a new analysis of the impact on the biopharma industry outlook from COVID-19.

Complimentary copies of the full report can be downloaded at:

www.evaluate.com/PharmaWorldPreview2020

Foreword

Few could have predicted the global events leading up to this year's EvaluatePharma World Preview 2020. The COVID-19 pandemic has cast a long shadow over the pharmaceutical industry – which is battling to find treatments – and indeed over all the citizens of the world, who are adjusting to new ways of living and working.

The long-term impact of the pandemic on the biopharma industry is still largely unknown. As such, many of the forecasts in this year's report will have been made in something of a vacuum.

Some of the economic and social disruptions have already been felt, however. Physical distancing and lockdown measures across the world have translated into fewer doctor visits, the cancellation of routine operations and delays to many patients starting new treatments.

Hundreds of clinical trials have been mothballed and trial readouts delayed; smaller developers in particular are exposed here, as they rely on fresh data for financial injections and partnering agreements. M&A transactions have also stalled, as company executives get to grips with international travel bans and virtual due diligence.

> It remains to be seen whether the pandemic will also impact drug approvals, the lifeblood of the industry.

But the longer the disruption, the more likely it becomes that regulatory decisions will slow, as agencies grapple with their own staffing issues.

Then there is the wider macro-economic picture. The loss of jobs and productivity means that many are predicting a global economic recession, leaving governments and individuals with less to spend on healthcare. The situation in the US, the world's biggest healthcare market, could have the biggest repercussions for the sector, as a ballooning unemployment rate shifts millions of citizens from private insurance coverage.

Investors, however, have largely shrugged off the pandemic risks, with the potential seen in experimental COVID-19 treatments apparently outweighing any short-term hits to performance.

Foreword

> Merck & Co predicted the biggest impact on its pharmaceutical revenues of the big pharma groups, shaving $1.7bn from its 2020 sales guidance; however, many other groups have benefited from stockpiling of medicines.

At this stage, most large drug makers are working on the basis of a return to business as usual by the end of the year. EvaluatePharma predicts that prescription drug sales will grow 3.7% this year, to $904bn.

It is not hard to find healthy levels of growth throughout this report, driven by demand for the new therapies that the biopharma sector is pushing through its pipeline. The need for effective and innovative ways to treat disease is something that even a global pandemic will not blunt.
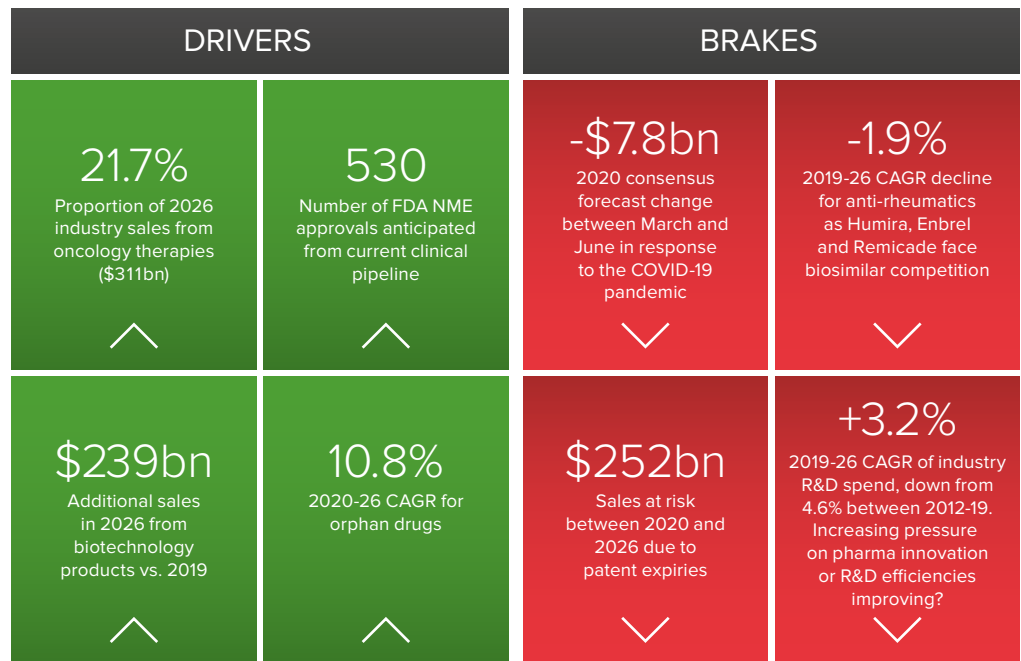
Ryan Waters
Senior Analyst, Evaluate Ltd

Lisa Urquhart
Editor, Evaluate Vantage

Analysis Highlights

Worldwide Prescription Drug Sales 2020-26 in figures

+7.4% CAGR* 2020-26

DRIVERS		BRAKES	
21.7% Proportion of 2026 industry sales from oncology therapies ($311bn)	**530** Number of FDA NME approvals anticipated from current clinical pipeline	**-$7.8bn** 2020 consensus forecast change between March and June in response to the COVID-19 pandemic	**-1.9%** 2019-26 CAGR decline for anti-rheumatics as Humira, Enbrel and Remicade face biosimilar competition
$239bn Additional sales in 2026 from biotechnology products vs. 2019	**10.8%** 2020-26 CAGR for orphan drugs	**$252bn** Sales at risk between 2020 and 2026 due to patent expiries	**+3.2%** 2019-26 CAGR of industry R&D spend, down from 4.6% between 2012-19. Increasing pressure on pharma innovation or R&D efficiencies improving?

* Compound Annual Growth Rate.

- Prescription drug sales expected to reach almost $1.4trn in 2026. Despite the COVID-19 pandemic causing near-term challenges across the healthcare sector, the industry demand for innovative and effective therapies continues to drive long-term growth.

- Keytruda set to be the top selling drug worldwide in 2026 with $24.9bn sales, a forecast almost double that of its closest rival. Humira drops out of the worldwide and USA top 10 in 2026 following adalimumab biosimilar entry in the EU and USA biosimilar competition expected from 2023.

Analysis Highlights

- Roche will be the leading prescription drug company in 2026 with sales of $61.0bn, retaining its top spot from 2019.

- Bristol-Myers Squibb will be the seventh largest prescription drug company by revenues in 2026 following its acquisition of Celgene. AbbVie moves up to fifth place following its acquisition of Allergan.

- Eli Lilly's anti-diabetic and obesity drug tirzepatide is currently the most valuable project in the pharmaceutical industry pipeline, with an NPV of $7.8bn.

- Roche to remain the top biotechnology company, with a forecast $48.6bn of biologic sales in 2026, despite a decrease in biotech revenue market share of -5.8% owing to the effect of biosimilars.

- Oncology is the area with the largest proportion of clinical development spending, with 37.4% of total pipeline expenditure and 28.7% of total pipeline FDA approvals. Oncology will contribute 21.7% of total pharmaceutical sales in 2026, with immuno-oncology sales increasing to $94.7bn between 2019-26 at a CAGR of 20.2%.

- Industry R&D spend is forecast to grow at a CAGR of 3.2% to 2026, lower than the CAGR of 4.6% between 2012 and 2019. Roche to be biggest spender on pharmaceutical R&D in 2026.

Table of Contents

Contents

COVID-19: Industry Impact

COVID-19 pandemic causes overall decrease in 2020 forecasts; Merck & Co experiences the greatest forecast decline.

Since the start of the global lockdown caused by the COVID-19 pandemic, analyst forecasts for 2020 product sales have dropped by $4.9bn for the top 15 companies. With a decrease of $1.25bn, Merck & Co is expected to lose the most sales this year of the top 15 companies, due to the pandemic. Around two thirds of the company's pharmaceutical revenue is derived from physician-administered products, which have been heavily impacted by social distancing measures leading to fewer patient visits; Keytruda's 2020 forecasts alone have decreased by $448m.

In its Q1 2020 results, Gilead announced that its HIV portfolio experienced a boost in sales due to increased customer stockpiling in response to the pandemic, along with the continued strong uptake of Biktarvy, leading analysts to increase the drug's forecast by $788m. The company noted that it expects this sales boost to reverse in subsequent quarters, as access to clinics and fewer new patient starts impact demand for its HIV and hepatitis C products. On May 1st, 2020, the company received Emergency Use Authorisation from the US FDA for Veklury (remdesivir) for
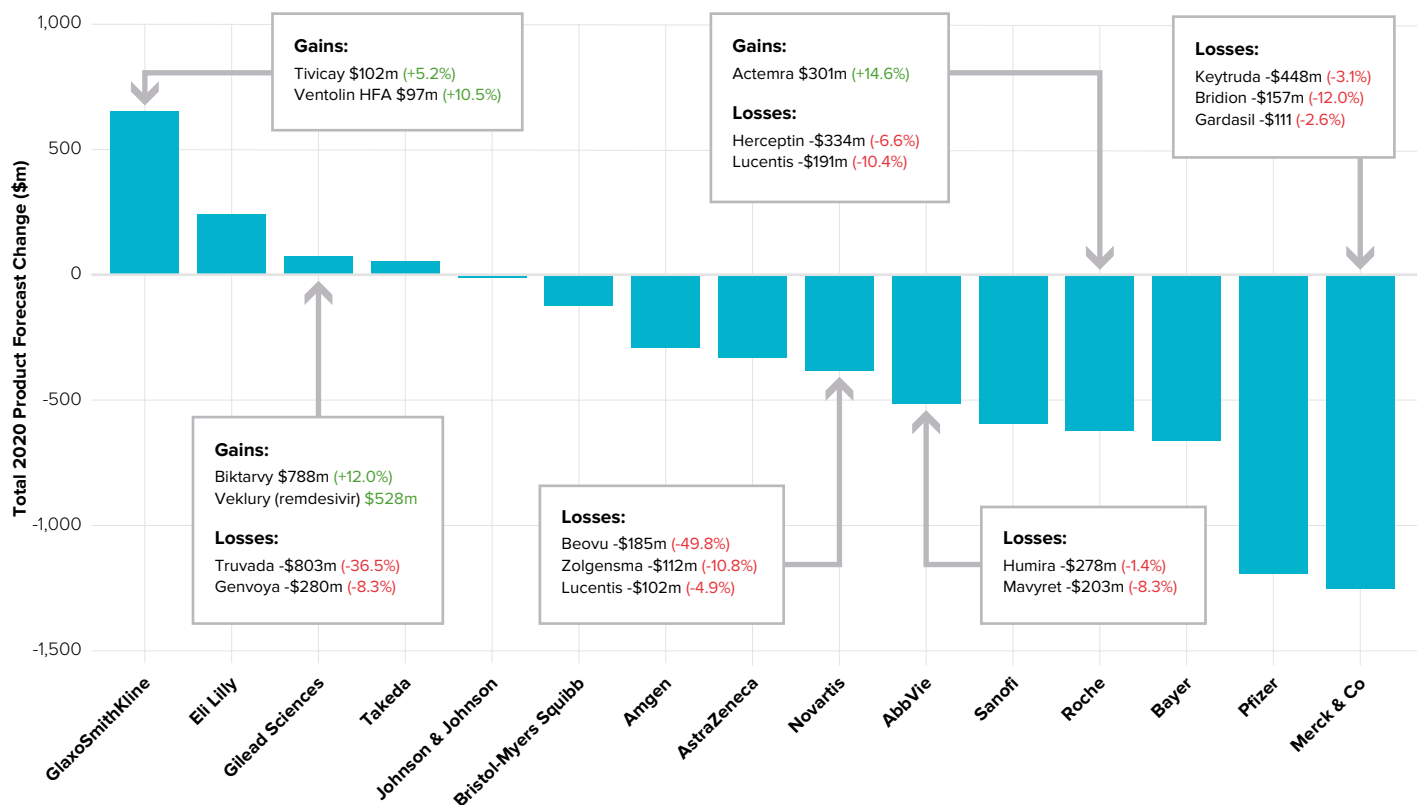
the treatment of COVID-19. Consensus forecast sales in 2020 have grown by $528m since March, with further forecast revisions expected from sell-side analysts after Gilead announced their pricing of remdesivir on June 29th, 2020, and the European Commission granted remdesivir conditional marketing authorisation on July 3rd, 2020.

Many of the top 15 companies have experienced decreased demand for physician-administered products. Novartis is expected to experience a loss of demand for its ophthalmology portfolio, with forecasts for Beovu and Lucentis declining by $185m and $102m respectively. Analysts anticipate a similar effect on demand for AbbVie's Humira (-$278m) and hepatitis C treatment Mavyret (-$203m). In its Q1 2020 results, Roche noted a decreased demand for some of its chronic disease and cancer portfolio, however, analysts raised 2020 forecasts by $301m for Actemra following the product's use as a COVID-19 treatment.

As a result of the COVID-19 pandemic, GSK has seen increased demand for the now off-patent respiratory drug Ventolin HFA and has also experienced buyer stockpiling of HIV regimen Tivicay, causing analysts to raise their 2020 forecasts by $97m and $102m respectively.

Figure 1: Total 2020 Product Consensus Forecast Change Between March and June: Top 15 Companies by 2020 Product Sales

Source: EvaluatePharma, June 2020

Gains:
Tivicay $102m (+5.2%)
Ventolin HFA $97m (+10.5%)

Gains:
Biktarvy $788m (+12.0%)
Veklury (remdesivir) $528m
Losses:
Truvada -$803m (-36.5%)
Genvoya -$280m (-8.3%)

Losses:
Beovu -$185m (-49.8%)
Zolgensma -$112m (-10.8%)
Lucentis -$102m (-4.9%)

Gains:
Actemra $301m (+14.6%)
Losses:
Herceptin -$334m (-6.6%)
Lucentis -$191m (-10.4%)

Losses:
Humira -$278m (-1.4%)
Mavyret -$203m (-8.3%)

Losses:
Keytruda -$448m (-3.1%)
Bridion -$157m (-12.0%)
Gardasil -$111 (-2.6%)

Table 1: Total 2020 Product Consensus Forecast Change Between March and June: Top 15 Companies by 2020 Product Sales

Source: EvaluatePharma, June 2020

Rank	Company	2020 Sales ($bn)	WW Product Consensus Forecast Change March - June 2020 ($m)	Change as % of current forecast
1.	**GlaxoSmithKline**	31.7	650	2.1%
2.	**Eli Lilly**	21.5	243	1.1%
3.	**Gilead Sciences**	21.5	77	0.4%
4.	**Takeda**	28.8	56	0.2%
5.	**Johnson & Johnson**	43.7	-7	0.0%
6.	**Bristol-Myers Squibb**	41.0	-119	-0.3%
7.	**Amgen**	24.1	-285	-1.2%
8.	**AstraZeneca**	25.2	-330	-1.3%
9.	**Novartis**	39.5	-378	-1.0%
10.	**AbbVie**	42.8	-512	-1.2%
11.	**Sanofi**	32.7	-592	-1.8%
12.	**Roche**	48.6	-619	-1.3%
13.	**Bayer**	20.7	-657	-3.2%
14.	**Pfizer**	39.9	-1,188	-3.0%
15.	**Merck & Co**	39.6	-1,251	-3.2%
	Total Top 15	**501.3**	**-4,912**	**-1.0%**

EvaluatePharma® finds that the greatest impact of the COVID-19 pandemic on near-term forecasts is concentrated in areas with mainly physician-administered drugs and chronic diseases. Products treating diseases affecting the central nervous system have experienced the highest overall 2020 forecast change of any therapy area, decreasing by $1,442m from March to June. Social distancing and lockdown measures have made accessing clinics more difficult, caused fewer surgeries and prompted patients to delay appointments. This has lowered demand for products such as Merck's anaesthesia agent Bridion and Roche's multiple sclerosis (MS) treatment Ocrevus.
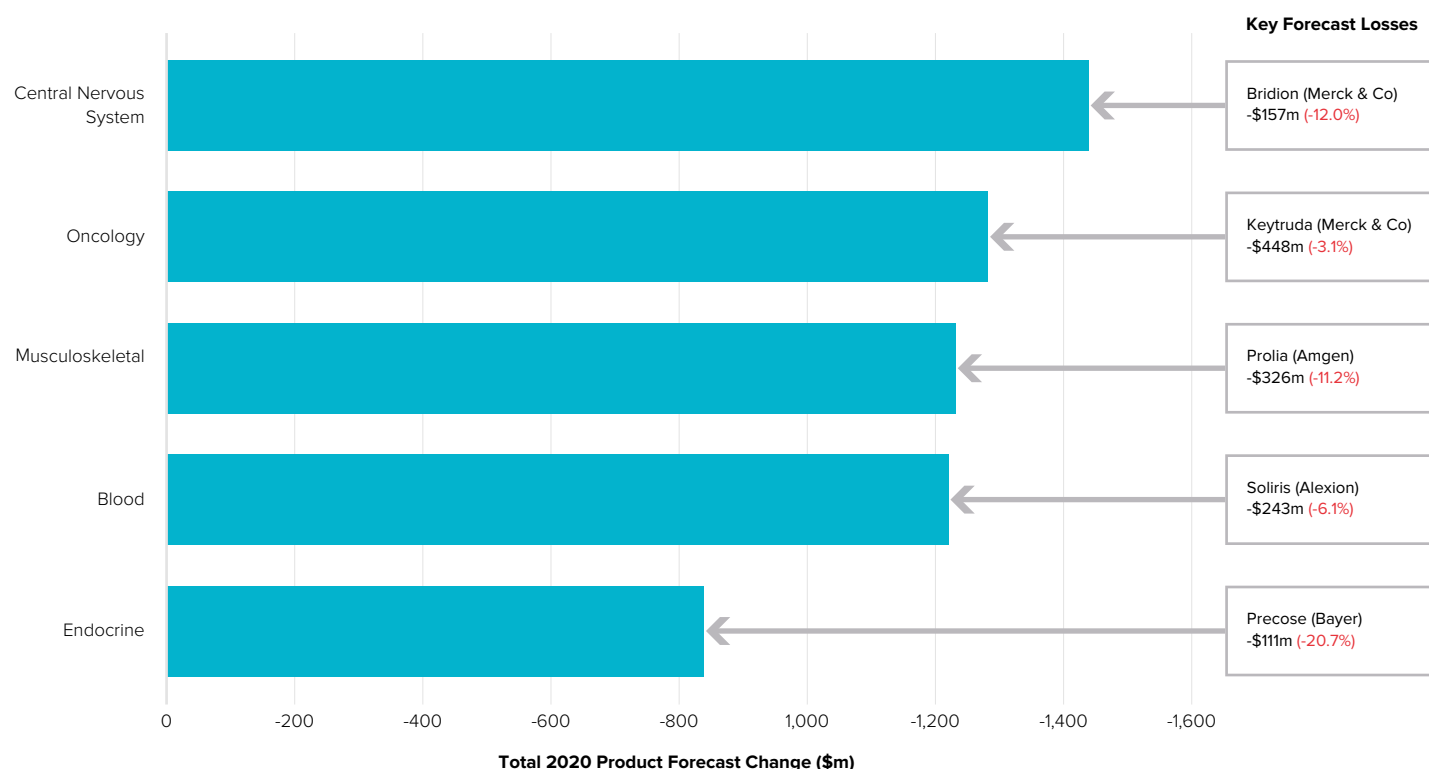
Musculoskeletal drugs have experienced a 2020 forecast decrease of $1,234m, with reduced demand for drugs like Humira and Prolia caused by fewer new patient starts and barriers to in-clinic injections, despite positive inventory stocking effects experienced for some drugs. A reduction in new patient starts for immunosuppressive therapies for conditions like rheumatoid arthritis and MS has also been observed during the pandemic, in order to avoid immunocompromising vulnerable patients. Sales of medical aesthetics such as AbbVie's Botox are expected to be heavily impacted as patients are discouraged against non-emergency procedures during the pandemic (products formerly of Allergan are not included in the below analysis – see methodology*).

Analyst forecasts for products in the oncology and blood disease areas have also declined in the near-term, with drugs in these areas being mainly physician-administered; additional factors such as prioritisation of COVID-19 patients at hospitals and clinics may have contributed to the reduction in demand. Endocrine therapies have also experienced an overall forecast decrease of $840m, despite some positive stocking effects seen for some products such as Eli Lilly's diabetes portfolio, including Trulicity. Bayer experienced a decline in business in China for its diabetes treatment Precose (Glucobay), following restrictions in connection with the pandemic.

Outside the top five, sensory organs experienced a forecast decrease of $715m, largely attributed to patients delaying treatment during lockdown due to reduced access to clinics, resulting in forecast declines for ophthalmic treatments such as Eylea and Lucentis. Systemic anti-infectives had a 2020 forecast decline of only $27m. Some positive effects have been seen in this area, including stockpiling of some HIV medications such as Tivicay and Biktarvy, whilst some companies have reported the increased use of certain vaccines and anti-infective products in response to the pandemic. However, these positive effects have been outweighed by an expected decrease in demand, notably across HIV, hepatitis C and vaccines, which has been driven by limited access to healthcare professionals and fewer patients seeking treatment during the pandemic.

Figure 2: Total 2020 Product Consensus Forecast Change Between March and June: Top 5 Losses by Therapy Area

Source: EvaluatePharma, June 2020

Key Forecast Losses

Therapy Area	Key Forecast Loss
Central Nervous System	Bridion (Merck & Co) -$157m (-12.0%)
Oncology	Keytruda (Merck & Co) -$448m (-3.1%)
Musculoskeletal	Prolia (Amgen) -$326m (-11.2%)
Blood	Soliris (Alexion) -$243m (-6.1%)
Endocrine	Precose (Bayer) -$111m (-20.7%)

Total 2020 Product Forecast Change ($m)

Table 2: Total 2020 Product Consensus Forecast Change Between March and June: Top 5 Losses by Therapy Area

Source: EvaluatePharma, June 2020

Rank	Therapeutic Category	2020 Sales ($bn)	WW Product Consensus Forecast Change March - June 2020 ($m)	Change as % of current forecast
1.	Central Nervous System	82.7	-1,442	-1.7%
2.	Oncology	157.0	-1,283	-0.8%
3.	Musculoskeletal	71.6	-1,234	-1.7%
4.	Blood	63.0	-1,222	-1.9%
5.	Endocrine	64.3	-840	-1.3%
	Other	303.7	-1,828	-0.6%
	Total Change	**-**	**-7,849**	**-**

COVID-19: Industry Impact Methodology: "2020 Sales" represent the sum of all 2020 product sales forecasts per company or therapeutic category.

"Change March - June 2020" compares the total change in 2020 product consensus forecasts in EvaluatePharma® over the period from April 1st to July 1st, 2020, (covering the global lockdown due to COVID-19 and the Q1 2020 reporting period). Only products that were active at April 1st and July 1st, 2020 within EvaluatePharma are included, and new products added post-April 1st, 2020 are excluded from analysis.

* Products formerly of Allergan have also been excluded from forecast change analysis following the acquisition of the company by AbbVie on May 8th, 2020, resulting in a change of sell-side analysts in the EvaluatePharma® consensus forecast disrupting fair comparison. Current products with EvaluatePharma single estimate forecasts have also been excluded.

COVID-19: Industry Impact

Whether you are actively developing treatments for COVID-19 or unsure how the pandemic will affect your commercial prospects, EvaluatePharma Vision delivers the insights you need to make informed, calculated and confident decisions.

Track share price and valuation changes, sales performance, clinical trial delays or cancellations, partnering and deal activity and more, alongside our unique predictive analytics, so you can understand the current landscape in more detail than ever, and plan your path forward.
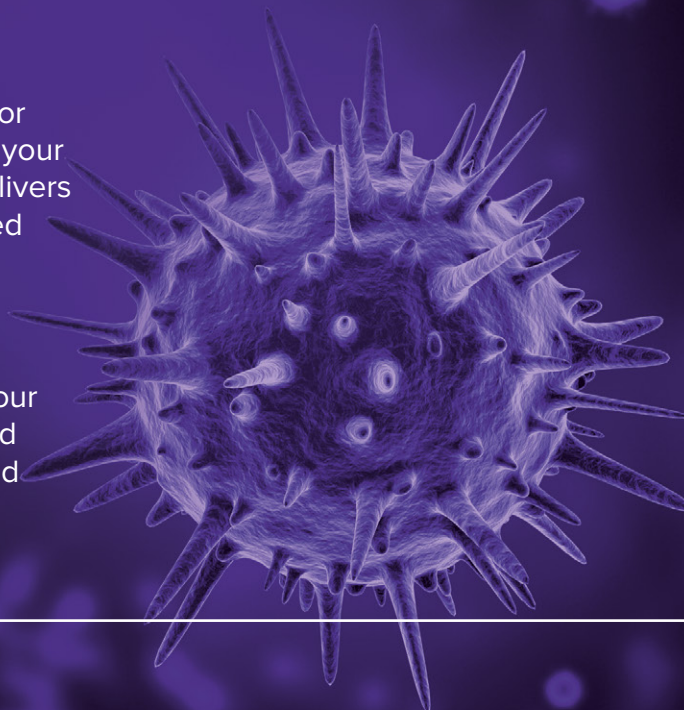
Biopharma R&D continues to direct its focus to oncology.

EvaluatePharma® finds that oncology remains an area of focus, with the highest number of predicted novel FDA approvals in the current US pipeline. The expected regulatory success in oncology is unsurprising, considering a projected total clinical development spend of $82.0bn, over triple that of any other area. However, high investment in oncology is set to see high return, with a forecast $188.2bn in net present value (NPV), representing 34.8% of the value of the US clinical pipeline.

Novel mechanistic approaches in gastro-intestinal and cardiovascular push these therapy areas to the top of Evaluate's innovation rankings, with 61% of predicted FDA approvals set to be first-in-class. Cardiovascular is the most expensive area in which to develop new therapies, with a forecast clinical development cost per approval of $0.7bn, due to the requirement for high patient enrolment resulting in a greater R&D cost burden. However, cardiovascular has the highest NPV per approval of $1.7bn, suggesting that the chronic nature of many cardiovascular diseases, combined with large patient populations, can result in high sales returns.

Figure 3: Clinical Development Spend vs Risk Adjusted FDA Approvals by Therapy Area of Current US Pipeline

Source: EvaluatePharma Vision®, June 2020
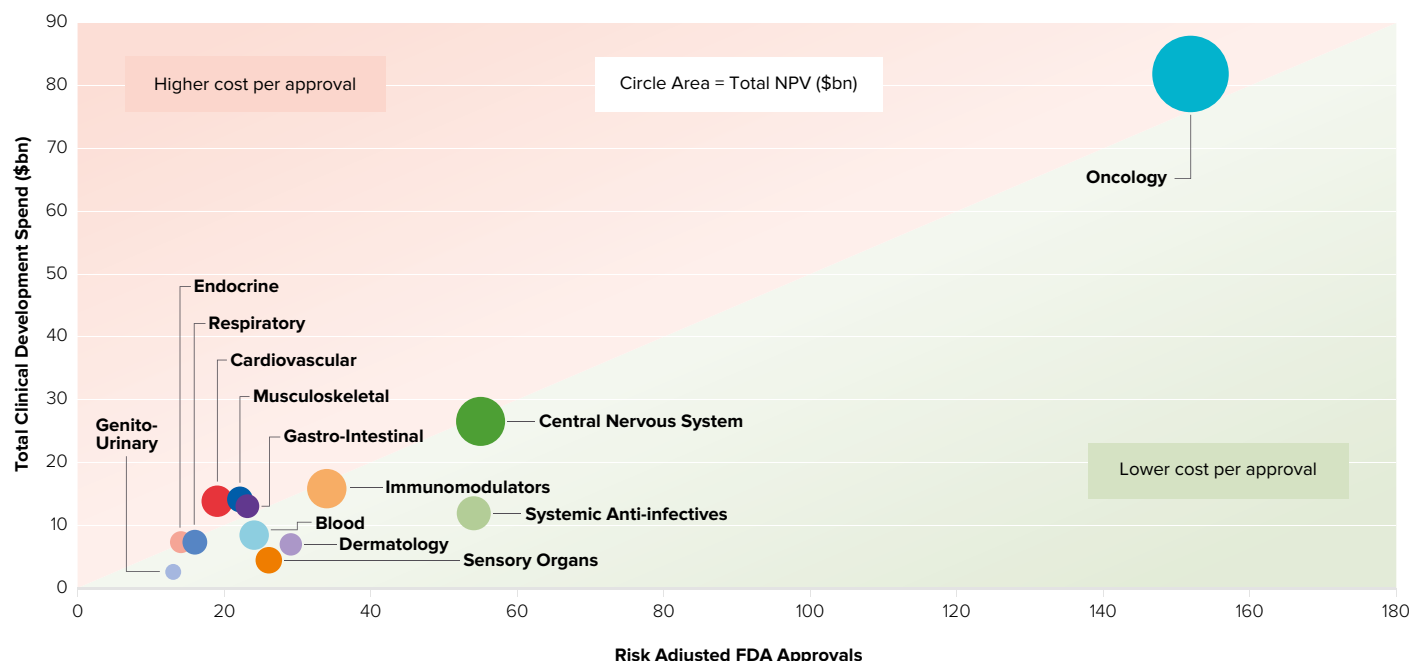
It's not just the lab or clinic that drives R&D innovation.

We all have a role to play in helping patients access the treatment options they need — now more than ever.

Table 3: Clinical Development Spend vs Risk Adjusted FDA Approvals by Therapy Area of Current US Pipeline

Source: EvaluatePharma Vision®, June 2020

| Rank | Therapeutic Category | Clinical Development Spend ($bn) | Risk Adjusted FDA Approvals | Total NPV ($bn) | Percentage of Total | | | Clinical Development Spend per Approval ($bn) | NPV Per Approval ($bn) | Risk Adjusted First-in-Class Approvals | First-in-Class Ratio (%) |
					Clinical Development Spend	Risk Adjusted FDA Approvals	NPV				
1.	**Oncology**	82.0	152	188.2	37.4%	28.7%	34.8%	0.5	1.2	69	45%
2.	**Central Nervous System**	26.5	55	76.0	12.1%	10.4%	14.1%	0.5	1.4	27	49%
3.	**Immunomodulators**	15.9	34	49.2	7.3%	6.4%	9.1%	0.5	1.4	19	57%
4.	**Musculoskeletal**	14.0	22	24.6	6.4%	4.2%	4.6%	0.6	1.1	10	44%
5.	**Cardiovascular**	13.8	19	32.8	6.3%	3.6%	6.1%	0.7	1.7	12	61%
6.	**Gastro-Intestinal**	12.7	23	15.5	5.8%	4.3%	2.9%	0.6	0.7	14	61%
7.	**Systemic Anti-infectives**	11.9	54	34.7	5.4%	10.2%	6.4%	0.2	0.6	18	34%
8.	**Blood**	8.4	24	26.0	3.8%	4.5%	4.8%	0.4	1.1	9	40%
9.	Respiratory	7.3	16	19.6	3.3%	3.0%	3.6%	0.5	1.2	9	54%
10.	**Endocrine**	7.2	14	15.6	3.3%	2.6%	2.9%	0.5	1.1	5	35%
11.	Dermatology	6.9	29	15.2	3.1%	5.5%	2.8%	0.2	0.5	13	44%
12.	**Sensory Organs**	4.4	26	20.9	2.0%	4.9%	3.9%	0.2	0.8	13	48%
13.	**Genito-Urinary**	2.5	13	7.8	1.1%	2.5%	1.4%	0.2	0.6	5	40%
	Various	5.8	49	14.3	2.6%	9.2%	2.6%	0.1	0.3	22	45%
	Total	**219.3**	**530**	**540.4**	**100%**	**100%**	**100%**	-	-	**244**	-

Inclusion criteria: Analysis refers to products which are in US clinical development (Phase I-III), or filed with the FDA. Only NMEs with no prior global approval are included, with risk adjustments applied to approval of US lead indication only, follow-on indications are excluded.

Methodology: 'Clinical Development Spend' by Therapeutic Category is calculated using EvaluatePharma Vision's proprietary R&D Cost model and represents the sum of the costs of all commercial clinical trials currently listed on ClinicalTrials.gov for products currently in active clinical development (PI-Filed) — clinical development spend is typically 50% of total R&D expenditure.

'Risk Adjusted FDA Approvals' represents the total number of approvals expected from the industry's current pipeline after applying EvaluatePharma Vision's proprietary product-specific probability of technical and regulatory success (PS-PTRS) to adjust for the level of risk associated with each pipeline candidate.

'Risk Adjusted First-in-Class Approvals' represents the total number of products expected to be the first product approved with its unique mechanism of action after applying the PS-PTRS to adjust for the level of risk associated with each pipeline candidate.

NPV sourced from EvaluatePharma Vision's NPV Analyzer on July 1st, 2020.

Colour coding: The colour applied to 'Risk Adjusted FDA Approvals' and 'NPV' percentages refers to being above (green) or below (red) the 'Clinical Development Spend' percentage. The blue colour scale applied to the remaining columns reflects the range within that column, with the darker shade representing a higher number.

But pharma struggles to identify which novel drugs will deliver the growth needed to invest in next-gen therapeutics.

R&D costs are rising, only 53% of phase III drugs reach the market and just 20% of NMEs generate 90% of commercial returns.

EvaluatePharma® finds that of the phase III assets currently in the US pipeline, blood products are most likely to be approved by the FDA with an average product-specific probability of technical and regulatory success (PS-PTRS) of 70%, based upon data from EvaluatePharma Vision. Biopharma continues to focus on research in the oncology space, with 103 new molecular entities in phase III development in the US, albeit with high developmental risk at an average PS-PTRS of 38%. The trend towards highly targeted therapies and smaller patient populations, along with the high volume of oncology therapies in development, may explain the comparatively low average US peak sales of ~$0.8bn for oncology products in phase III.

Immunomodulators have the potential for extremely high returns with average forecast US peak sales of nearly $2.2bn. This higher return is complemented by a lower risk profile with a median PS-PTRS of 47%. Other therapy areas with similar risk:return profiles are respiratory and dermatology, with an average forecast US peak sales of nearly $1.3bn and $1.1bn respectively, along with an average PS-PTRS of 47% and 53% respectively. However, dermatology has a much lower average R&D expenditure per product of $262m, with respiratory being double this figure at $525m. Endocrine therapies show the highest average R&D expenditure per product in phase III of $788m, mostly attributed to the large-scale nature of diabetes trials.

Figure 4: PTRS vs Predicted Peak Sales by Therapy Area of Current US Pipeline Phase III Assets

Source: EvaluatePharma Vision®, June 2020
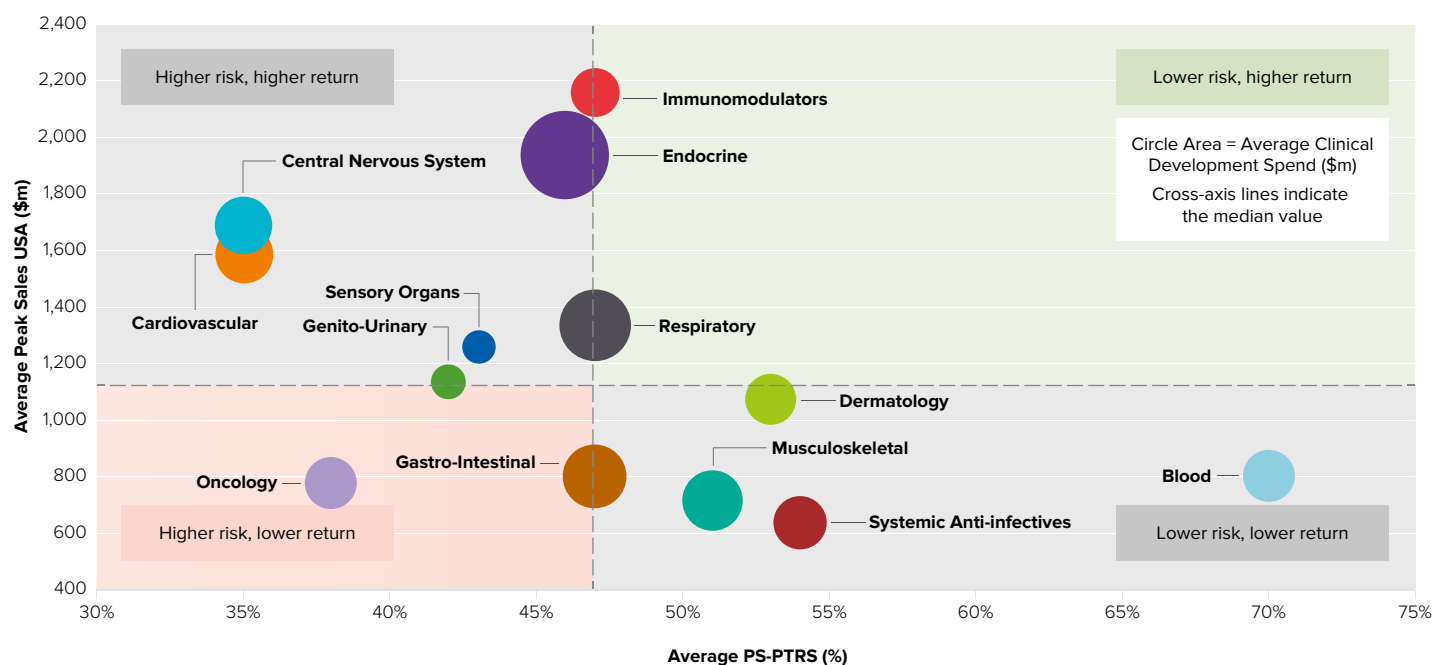
The result? From 2012-2019, pharmaceutical sales grew at only half the rate of R&D spending, even as the number of approved NMEs steadily increased.

It's time for a new approach.

Table 4: PTRS vs. Predicted Peak Sales by Therapy Area of Current US Pipeline Phase III Assets

Source: EvaluatePharma Vision®, June 2020

Rank	Therapeutic Category	Average PS-PTRS (%)	Average Peak Sales USA ($m)	Average Clinical Development Spend ($m)	Product Count
1.	Blood	70%	803	272	17
2.	Systemic Anti-infectives	54%	642	274	33
3.	Dermatology	53%	1,076	262	26
4.	Musculoskeletal	51%	719	345	19
5.	Respiratory	47%	1,335	525	9
6.	Immunomodulators	47%	2,160	244	38
7.	Gastro-Intestinal	47%	800	404	19
8.	Endocrine	46%	1,940	788	9
9.	Sensory Organs	43%	1,259	112	24
10.	Genito-Urinary	42%	1,137	122	14
11.	Oncology	38%	777	268	103
12.	Cardiovascular	35%	1,588	338	29
13.	Central Nervous System	35%	1,689	331	54
	Various	56%	326	96	27
	Median	47%	1,106	273	-
	Total	-	-	-	**421**

Inclusion criteria: Analysis refers to products which are in phase III of US clinical development. Only NMEs with no prior global approval are included.

Methodology: 'Clinical Development Spend' by Therapeutic Category is calculated using EvaluatePharma Vision's proprietary R&D Cost model and represents the sum of the costs of all commercial clinical trials currently listed on ClinicalTrials.gov for the included products – clinical development spend is typically 50% of total R&D expenditure.

'Average PS-PTRS' is calculated using the average of EvaluatePharma Vision's proprietary product-specific probability of technical and regulatory success (PS-PTRS) for the lead indication of each product within the specified therapy area.

'Average Peak Sales USA' is sourced from EvaluatePharma Vision's NPV Analyzer on July 1st, 2020, and is calculated based on proprietary trending algorithms to the year of loss of exclusivity.

Colour coding: The blue colour scale applied to the columns reflects the range within that column, with the darker shade representing a higher number.

Evaluate is developing it.

We've analyzed pharma for 20+ years, and heard from our clients how the lack of commercial clarity for early-stage drugs limits their ability to invest in the right products.

Our latest breakthrough goes beyond consensus forecasts to deliver a complete picture of commercial potential and development risk earlier in a product's lifecycle — and transform your results.

Worldwide Prescription Drug Sales (2012-2026)

Prescription drug market continues to grow; high sales risk from patent expiries; orphan drug market to almost double.

EvaluatePharma® finds that prescription (Rx) drug sales are set to grow at a CAGR of +7.4% between 2020 and 2026, with sales expected to reach almost $1.4trn. When compared to the 2012 through 2019 Rx sales CAGR of +2.7%, this highlights the continued impressive sales acceleration of the healthcare sector. 2020 will prove to be an atypical year for biopharma following the global lockdowns caused by the coronavirus outbreak, as we forecast a slight decline in Rx sales growth rate in 2020 (+3.7%) and 2019 (+3.8%) compared to 2018 (+4.7%), which may be largely attributed to the pandemic.

WW Rx sales, excluding generics, are set to be over $1.0trn in 2023. If excluding both generic and orphan sales, Rx sales will reach the same milestone in 2026. The growth rate for the Rx market from 2021 until 2026 is expected to grow considerably, with the highest year-on-year growth of +8.2% forecast in 2025. The impressive forecast growth can be attributed to some highly anticipated drug launches over the coming years. Anticipated drug launches in 2020

include the FDA approved Palforzia, Trodelvy and Tukysa, along with Veklury (remdesivir) and Actemra, both being investigated for COVID-19 treatment. On May 1st, 2020, remdesivir was issued with an Emergency Use Authorisation by the FDA for the treatment of COVID-19 in adults and children hospitalised with the disease.

The orphan drug market continues to grow, and is set to double from $127bn sales in 2019 to a forecast $255bn in 2026, highlighting the trend that drugmakers are targeting more specialised diseases with smaller patient populations.

Consensus forecasts indicate that $252bn of sales are at risk between 2020 and 2026, with 2023 set to see the expiry of key patents for a number of biologics including Humira and Stelara. A host of high profile patent expiries are also expected in 2025 and 2026, with major drugs like Perjeta, Prolia, Xgeva, Xeljanz, Farxiga and Yervoy having patent expiries in 2025, whilst Eliquis and Prevnar 13 go off patent in 2026. In spite of the patent expiry in 2026, Eliquis is still forecast to retain a spot within Evaluate's WW top 10 selling drugs ranking in 2026.

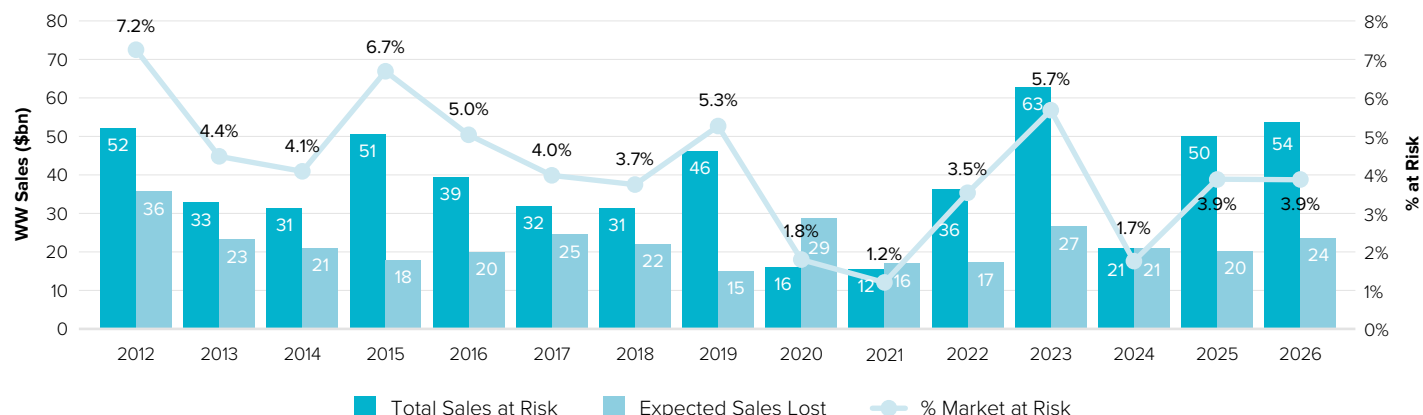## Figure 5: Worldwide Total Prescription Drug Sales (2012-2026)

Source: EvaluatePharma, June 2020
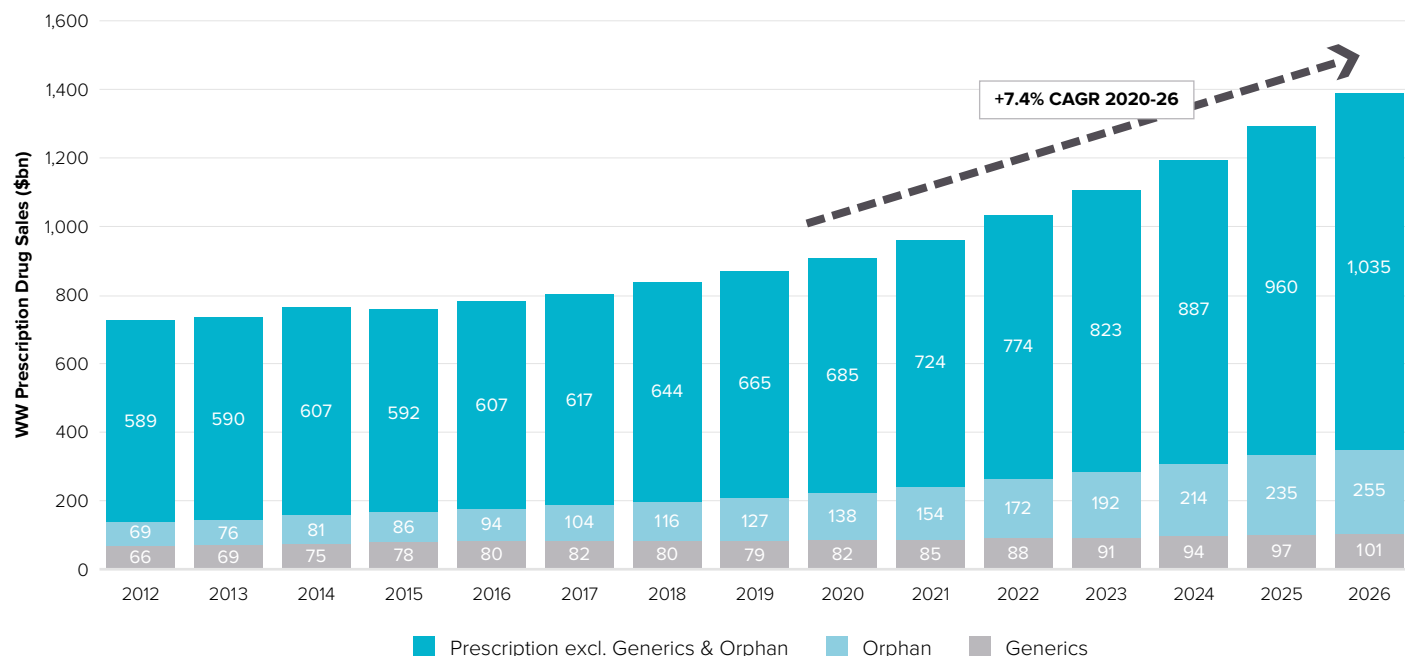
Figure 6: Worldwide Sales at Risk from Patent Expiration (2012-2026)

Source: EvaluatePharma, June 2020

Patent Analysis: 'Total Sales at Risk' represents the worldwide product sales in the year prior to patent expiry, but are allocated to the year of expiry. E.g. Lantus had sales of $7.1bn in 2015, this is shown above as 'At Risk' in 2016.

Table 5: Worldwide Prescription Drug Sales (2012-2026)

Source: EvaluatePharma, June 2020

Year	WW Prescription Sales ($bn)														
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Prescription	725	735	763	756	781	802	840	872	904	963	1,033	1,106	1,195	1,293	1,390
Growth per Year		+1.4%	+3.8%	-0.9%	+3.4%	+2.7%	+4.7%	+3.8%	+3.7%	+6.4%	+7.4%	+7.0%	+8.0%	+8.2%	+7.5%
Change vs. June 2019 ($bn)								28	12	8	7	6	14	-	-
Generics	66	69	75	78	80	82	80	79	82	85	88	91	94	97	101
Generics as % of Prescription	9.2%	9.4%	9.8%	10.3%	10.3%	10.2%	9.5%	9.1%	9.0%	8.8%	8.5%	8.2%	7.9%	7.5%	7.2%
Prescription excl. Generics	659	666	688	678	701	721	760	792	823	878	946	1,015	1,101	1,195	1,290
Growth per Year		+1.1%	+3.3%	-1.5%	+3.4%	+2.8%	+5.4%	+4.3%	+3.8%	+6.7%	+7.7%	+7.4%	+8.4%	+8.6%	+7.9%
Orphan	69	76	81	86	94	104	116	127	138	154	172	192	214	235	255
Prescription excl. Generics & Orphan	589	590	607	592	607	617	644	665	685	724	774	823	887	960	1,035

Prescription incl. Generics CAGR 2020-26 +7.4%

Note: Sales to 2019 based on company reported sales data. Sales forecasts to 2026 based on a consensus of leading equity analysts' estimates for company product sales and segmental sales.

Table 6: Worldwide Sales at Risk from Patent Expiration (2012-2026)

Source: EvaluatePharma, June 2020

Year	WW Prescription Sales ($bn)														
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Total Sales at Risk	52	33	31	51	39	32	31	46	16	12	36	63	21	50	54
Expected Sales Lost	36	23	21	18	20	25	22	15	29	16	17	27	21	20	24
% Market at risk	7.2%	4.4%	4.1%	6.7%	5.0%	4.0%	3.7%	5.3%	1.8%	1.2%	3.5%	5.7%	1.7%	3.9%	3.9%

Worldwide Prescription Drug Sales in 2026: Top 10 Companies

Roche to retain the top spot for worldwide prescription drug sales in 2026.

Roche beats both Novartis and previous top company Pfizer to claim the top spot in 2019 and retains its place in 2026, mostly driven by sales of Ocrevus, Tecentriq, Hemlibra and Perjeta, which together could potentially add around $25.4bn in sales for the company in 2026. Roche's recent acquisitions of gene therapy company Spark Therapeutics and fibrosis specialists Promedior have also helped to continue to diversify the company's portfolio.

Johnson & Johnson jumps from fifth place to second place in 2026, which may largely be attributed to the strong forecast sales growth of its blockbuster blood cancer treatment Darzalex, which is set to add $8bn in sales in 2026. The company has also recently seen excitement surrounding its COVID-19 vaccine candidate, along with fellow top 10 companies AstraZeneca, GlaxoSmithKline, Sanofi and Pfizer.

Whilst Novartis has managed to maintain its place in the top three from last year, the company is forecast to experience a significant drop in WW prescription (Rx) drug market share, dropping by 1.3% between 2019 and 2026. Only Pfizer experienced a larger loss, with a marginally greater drop in market share of 1.4% over the same period.

Pfizer and Sanofi are the only companies in the top 10 to report a decrease in Rx sales from 2018-19; Pfizer's prescription sales dropped by 3.2% to $43.8bn in 2019, which can most likely be attributed to Lyrica's patent expiring in June 2019. Sales for Lyrica

dropped by $1.6bn from 2018-19, with the company expecting further losses of around $2.8bn by 2026. Sanofi experienced a much smaller drop in Rx sales from 2018-19 of $0.2bn.

AstraZeneca, Bristol-Myers Squibb and AbbVie are the only companies that have increased their forecast market share between 2019-26. The acquisition of Celgene by Bristol-Myers Squibb is the largest contributor to this change, causing the company to place in the top 10 this year with the combined portfolio. AbbVie also completed their acquisition of Allergan for $63bn on May 8th, 2020, a strategic move that is set to diversify AbbVie's current product portfolio and increase revenues in light of Humira's looming loss of exclusivity in the USA in 2023. Sales of Humira are set to drop by around $12.9bn between 2019 and 2026. AstraZeneca's sustained increase in market share year-on-year can be attributed to sales of Tagrisso, Lynparza and Imfinzi, which continue to be major growth drivers for the company.

Takeda narrowly missed ranking in the top 10 in 2026, despite its acquisition of Shire in 2019 significantly diversifying its product portfolio and increasing company revenue. In 2019, the company's factor VIII replacement therapy Advate experienced a drop of just under $1.0bn in sales, largely due to the patent expiring in June 2019, as well as Roche's Hemlibra rapidly gaining market share in haemophilia A.

The top 10 pharma companies showed a -6.2% decrease in market share overall, with Pfizer contributing -1.4% of that figure.

Figure 7: Worldwide Prescription Drug Sales in 2026: Top 10 Companies

Source: EvaluatePharma, June 2020
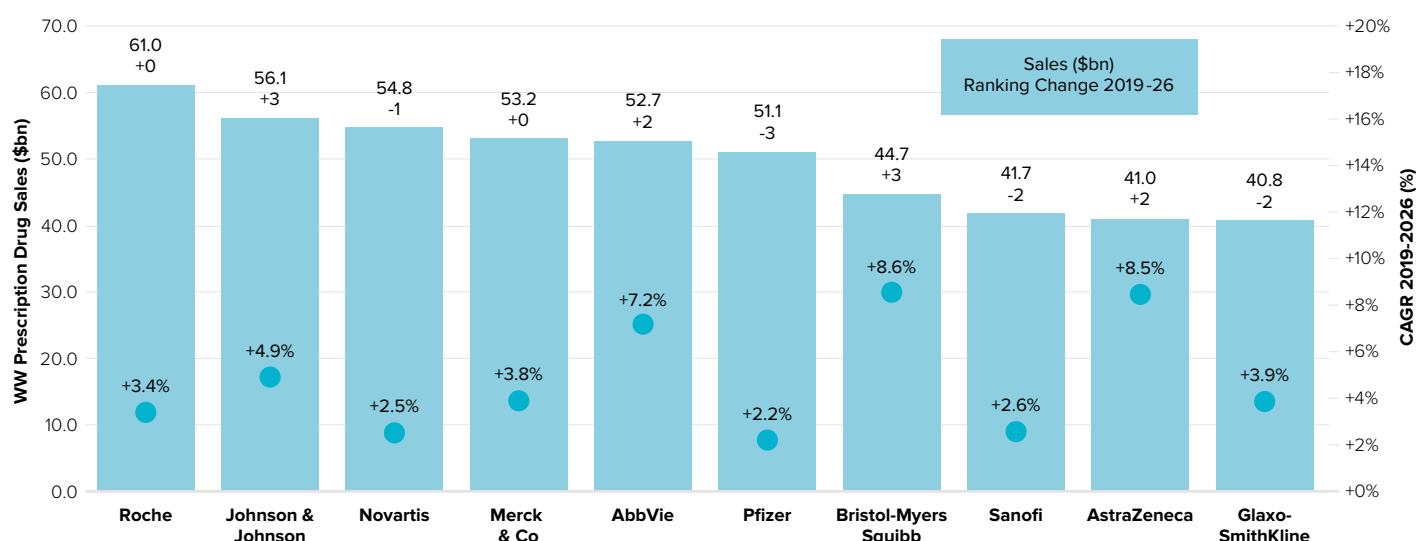
Table 7: Worldwide Prescription Drug Sales (2019-2026):
Top 10 Companies & Total Market

Source: EvaluatePharma, June 2020

Rank	Company	WW Prescription Sales ($bn)			WW Market Share			Rank
		2019	2026	CAGR	2019	2026	Chg. (+/-)	Chg. (+/-)
1.	Roche	48.2	61.0	+3.4%	5.5%	4.4%	-1.1pp	+0
2.	Johnson & Johnson	40.1	56.1	+4.9%	4.6%	4.0%	-0.6pp	+3
3.	Novartis	46.1	54.8	+2.5%	5.3%	3.9%	-1.3pp	-1
4.	Merck & Co	40.9	53.2	+3.8%	4.7%	3.8%	-0.9pp	+0
5.	AbbVie	32.4	52.7	+7.2%	3.7%	3.8%	+0.1pp	+2
6.	Pfizer	43.8	51.1	+2.2%	5.0%	3.7%	-1.4pp	-3
7.	Bristol-Myers Squibb	25.2	44.7	+8.6%	2.9%	3.2%	+0.3pp	+3
8.	Sanofi	34.9	41.7	+2.6%	4.0%	3.0%	-1.0pp	-2
9.	AstraZeneca	23.2	41.0	+8.5%	2.7%	2.9%	+0.3pp	+2
10.	GlaxoSmithKline	31.3	40.8	+3.9%	3.6%	2.9%	-0.7pp	-2
	Total Top 10	366.1	497.1	+4.5%	42.0%	35.8%	-6.2pp	
	Other	505.8	893.1	+8.5%	58.0%	64.2%		
	Total	871.8	1,390.3	+6.9%	100.0%	100.0%		

Note: Bristol-Myers Squibb acquired Celgene on November 20th, 2019, for $74bn and AbbVie acquired Allergan on May 8th, 2020, for $63bn. The acquiring company now inherits all of the acquired company products and forecast revenues, which accounts for the significant increase in Worldwide Prescription Drug Sales between 2019 and 2026.

Worldwide Prescription Drug & OTC Sales by Technology (2012-2026)

Industry continues to shift towards biotechnology; Roche remains the top biologic company.

Biotechnology products are forecast to take majority share in the top 100 drugs by sales by 2026, with 55% of the total top 100 product sales in 2026, up 16% compared to 2012. Global prescription sales of biotechnology products continue to grow rapidly with a CAGR of 9.6% between 2019 and 2026, compared to conventional product growth of 5.5% in the same timeframe.

Despite losing 5.8% of the market share, likely due to three of the company's biologic blockbusters (Avastin, Herceptin and Rituxan) going off patent in 2018 and 2019, Roche remains the top biologic company by sales with an impressive 9.6% of the worldwide biotechnology market in 2026. Roche is set to hold 9 out of the 50 biotechnology products in the 2026 top 100 global products by

sales, including its major growth drivers Ocrevus, Tecentriq, Perjeta and Hemlibra.

Amgen is projected to fall two places, likely due to Enbrel losing market share to competition, whereas Novo Nordisk is estimated to jump up to third position, driven by the high forecast growth of the company's GLP-1 agonists Ozempic and Rybelsus, together forecast to book almost $15bn in sales in 2026.

AbbVie is anticipated to fall out of the top 10, a likely result of Humira losing exclusivity in the USA in 2023. Novartis joins the top 10 with strong Cosentyx and Entresto forecasts on top of the anticipated launch of Arzerra S.C. and inclisiran. The company is also the only one in the top 10 projected to increase their global biotechnology market share by 2026.

Figure 8: Worldwide Prescription Drug & OTC Pharmaceutical Sales: Biotech vs. Conventional Technology

Source: EvaluatePharma, June 2020
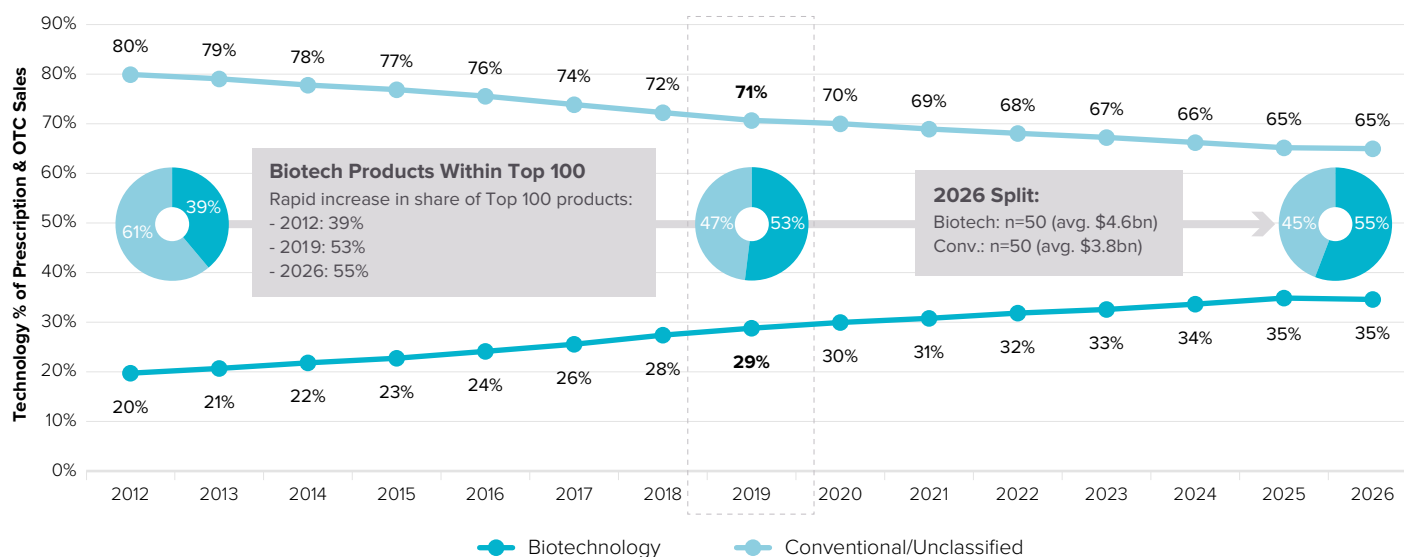
Table 8: Worldwide Prescription Drug & OTC Sales by Technology (2012-2026)

Source: EvaluatePharma, June 2020

Technology	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Biotechnology	20%	21%	22%	23%	24%	26%	28%	29%	30%	31%	32%	33%	34%	35%	35%
Conventional/Unclassified	80%	79%	78%	77%	76%	74%	72%	71%	70%	69%	68%	67%	66%	65%	65%
Total Prescription & OTC Sales	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Technology	WW Sales ($bn)														
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Biotechnology	149	162	174	179	197	215	242	266	284	312	344	378	416	461	505
Conventional	443	435	447	440	446	447	461	469	476	505	536	566	606	644	681
Other Unclassified Sales	170	177	181	171	175	177	176	175	180	183	191	201	212	228	246
Total Prescription & OTC Sales	**762**	**774**	**802**	**791**	**818**	**839**	**879**	**910**	**940**	**999**	**1,071**	**1,145**	**1,235**	**1,333**	**1,432**

Table 9: Worldwide Prescription Drug Sales from Biotechnology in 2026: Top 10 Companies

Source: EvaluatePharma, June 2020

Rank	Company	WW Sales ($bn)			WW Market Share			
		2019	2026	% CAGR 19-26	2019	2026	Chg. (+/-)	Rank Chg.
1.	**Roche**	41.1	**48.6**	+2.4%	15.4%	9.6%	-5.8pp	+0
2.	**Merck & Co**	19.8	**37.4**	+9.5%	7.5%	7.4%	-0.0pp	+1
3.	**Novo Nordisk**	17.9	**28.1**	+6.6%	6.7%	5.6%	-1.2pp	+2
4.	**Sanofi**	15.6	**25.2**	+7.1%	5.9%	5.0%	-0.9pp	+3
5.	**Eli Lilly**	14.1	**22.5**	+7.0%	5.3%	4.5%	-0.8pp	+3
6.	**Amgen**	19.6	**21.4**	+1.3%	7.4%	4.2%	-3.1pp	-2
7.	**Johnson & Johnson**	17.7	**21.1**	+2.5%	6.7%	4.2%	-2.5pp	-1
8.	**Bristol-Myers Squibb**	12.2	**20.6**	+7.7%	4.6%	4.1%	-0.5pp	+1
9.	**Novartis**	8.6	**19.0**	+12.0%	3.2%	3.8%	+0.5pp	+4
10.	**GlaxoSmithKline**	8.7	**16.1**	+9.2%	3.3%	3.2%	-0.1pp	+2

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

Table 10: Worldwide Prescription Drug Sales from Top 100 Products

Source: EvaluatePharma, June 2020

Technology	WW Sales ($bn)			As a %		
	2012	2019	2026	2012	2019	2026
Biotechnology	99	167	230	39%	53%	55%
Conventional	158	151	189	61%	47%	45%
Total	**257**	**318**	**419**	**100%**	**100%**	**100%**

Top 10 Most Valuable R&D Projects (Ranked by Net Present Value)

Eli Lilly's anti-diabetic and obesity drug tirzepatide beats the competition to claim the most valuable project in the pharmaceutical industry pipeline.

A familiar face from last year, Eli Lilly's anti-diabetic and obesity entry tirzepatide has risen in the ranks from sixth place to the top spot on the back of a strong show of confidence from Lilly, pitting the drug directly against their current top seller Trulicity in the cardiovascular outcome trial, Surpass-CVOT. Novartis finds itself with the second most valuable pipeline asset in the industry in the form of The Medicines Company's lead asset inclisiran, following the acquisition of the company in January 2020. Approval of the drug is expected in H2 2020, and the RNAi asset is forecast to challenge Amgen's Repatha for the top spot of the anti-hyperlipidaemic market by 2026.

The list is once again dominated by large-cap companies, with only four projects coming from mid-cap biotechs. The leader of the pack is argenx with its immunosuppressant efgartigimod, currently sitting in third place following recent positive top-line results from the phase III ADAPT trial in patients with generalised myasthenia gravis. Following in fifth place is Vir Biotechnology's collaboration with Alnylam Pharmaceuticals, ALN-HBV02, a novel RNAi therapeutic for the treatment of chronic hepatitis B infection. Iovance Biotherapeutics sits at number eight with one of its two

phase II tumour infiltrating lymphocytes (TIL) cell therapies, LN-144, which has a Fast Track Designation from the FDA for the treatment of advanced melanoma. Allakos completes the quartet at number nine with its phase III oesophagitis and gastritis asset, AK002.

Biogen's highly anticipated and controversial Alzheimer's drug aducanumab sits at the number six position. With the future direction of Alzheimer's research as well as the entire amyloid-beta hypothesis resting on the shoulders of this once abandoned drug, the delay in the promised early 2020 filing with the FDA may unnerve investors. However, Biogen remains positive about its chances of regulatory success in what could be the first new Alzheimer's disease treatment in more than 15 years, which is enough to place it as one of the most valuable R&D projects.

Bristol-Myers Squibb's tyrosine kinase 2 (TYK2) inhibitor BMS-986165 places fourth, with high hopes placed on the drug to recover the potential psoriasis sales lost after the disposal of Otezla in the $74bn Celgene merger. Two new entries in the form of GlaxoSmithKline's belantamab mafodotin for multiple myeloma and Roche's spinal muscular atrophy therapy, risdiplam, complete the top 10. Roche was granted a priority review for risdiplam by the FDA in November 2019; however, the Prescription Drug User Fee Act (PDUFA) date for the New Drug Application was extended, with Roche now expecting a decision on August 24th, 2020.

Table 11: Top 10 Most Valuable R&D Projects (Ranked by Net Present Value)

Source: EvaluatePharma Vision®, June 2020

Rank	Product	Company	Phase (current)	Mechanism of Action	WW Product Sales ($m) 2026		Today's NPV ($m)	
1.	Tirzepatide	Eli Lilly	Phase III	Gastric inhibitory polypeptide (GIP) receptor agonist; Glucagon-like peptide 1 (GLP-1) receptor agonist	2,198		7,832	
2.	Inclisiran	Novartis	Filed	Proprotein convertase subtilisin/kexin type 9 (PCSK9) inhibitor	2,010	New Entry	7,422	
3.	Efgartigimod	argenx	Phase III	Neonatal Fc receptor (FcRn) antibody	2,002	New Entry	5,650	
4.	BMS-986165	Bristol-Myers Squibb	Phase III	Tyrosine kinase 2 (TYK2) inhibitor	1,810	New Entry	5,638	
5.	ALN-HBV02	Vir Biotechnology	Phase II	Hepatitis B polymerase RNAi therapeutic	1,164	New Entry	5,459	
6.	Aducanumab	Biogen	Phase III	Beta amyloid A4 protein antibody	1,634		5,361	
7.	Belantamab Mafodotin	GlaxoSmithKline	Filed	Tubulin polymerisation inhibitor; Tumour necrosis factor receptor superfamily member 17 (TN-FRSF17) antibody	1,251	New Entry	5,338	
8.	LN-144	Iovance Biotherapeutics	Phase II	Tumour infiltrating lymphocytes (TIL) cell therapy	1,473	New Entry	5,162	
9.	AK002	Allakos	Phase III	Sialic acid-binding immunoglobulin-type lectins-8 (SIGLEC-8) antibody	1,201	New Entry	5,126	
10.	Risdiplam	Roche	Filed	Survival motor neuron 2 (SMN2) protein stimulant	1,412	New Entry	5,087	
	Top 10				16,154		**58,076**	
	Other				224,783		506,663	
	Total				240,937		**564,738**	**-4%**
				NPV of R&D Pipeline MAY 2019:			**590,943**	

Note: Today's NPV ($m) relates to the Net Present Value of the product as of July 1st, 2020, based on the EvaluatePharma Vision NPV Analyzer.

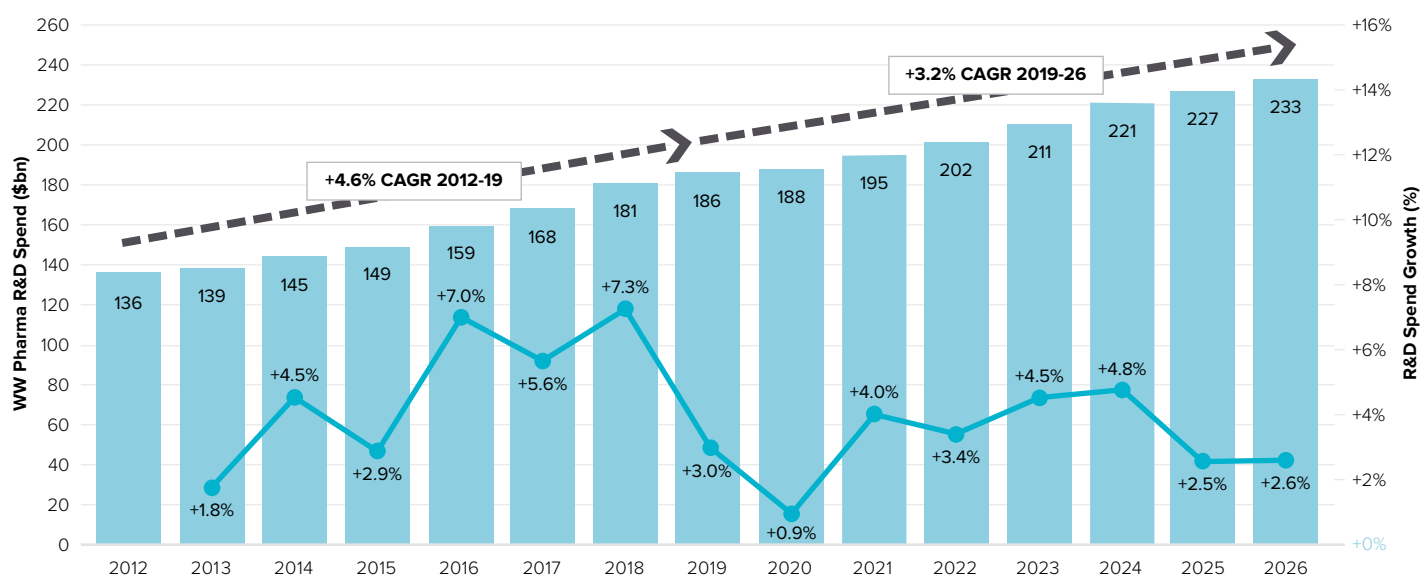# Worldwide R&D Spend by Pharma & Biotech Companies (2012-2026)

Industry R&D expenditure growth to slow down; proportion of R&D spend to pharmaceutical revenue decreases.

EvaluatePharma® finds that worldwide pharmaceutical R&D spend is forecast to grow steadily between 2019 and 2026 at a CAGR of 3.2% to reach $232.5bn, slower than the historical CAGR of 4.6% between 2012 and 2019. Worldwide pharmaceutical R&D spend totalled $186.0bn in 2019 representing an increase of 3.0% on the previous year, a much slower increase compared to the 2018 year-on-year growth of 7.3%.

The average proportion of R&D spend to worldwide prescription (Rx) sales also looks to be decreasing, with an average of 18.9% for 2020 through 2026, compared to 20.1% in 2012 to 2019. The decrease in R&D spending to Rx sales from 21.3% in 2019 to 16.7% in 2026 suggests that the biopharma industry expects to reap the benefits of R&D investment made now in the coming years. Going forward, this data supports the industry trend towards more specialised treatments with smaller patient populations, along with biopharma investing heavily in ways to improve R&D efficiencies such as the use of artificial intelligence.

Figure 9: Worldwide Total Pharmaceutical R&D Spend in 2012-2026

Source: EvaluatePharma, June 2020

Table 12: Worldwide R&D Spend by Pharma & Biotech Companies (2012-2026)
Source: EvaluatePharma, June 2020

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Pharma R&D Spend	136.1	138.6	144.8	149.0	159.4	168.4	180.6	186.0	187.8	195.3	201.9	211.0	221.1	226.7	232.5
Growth per Year		+1.8%	+4.5%	+2.9%	+7.0%	+5.6%	+7.3%	+3.0%	+0.9%	+4.0%	+3.4%	+4.5%	+4.8%	+2.5%	+2.6%
WW Prescription Sales	725	735	763	756	781	802	840	872	904	963	1,033	1,106	1,195	1,293	1,390
R&D as % of WW Prescription Sales	18.8%	18.8%	19.0%	19.7%	20.4%	21.0%	21.5%	21.3%	20.8%	20.3%	19.5%	19.1%	18.5%	17.5%	16.7%
Generics	66	69	75	78	80	82	80	79	82	85	88	91	94	97	101
Prescription excl. Generics	659	666	688	678	701	721	760	792	823	878	946	1,015	1,101	1,195	1,290
R&D as % of Prescription excl. Generics	20.7%	20.8%	21.1%	22.0%	22.7%	23.4%	23.8%	23.5%	22.8%	22.2%	21.3%	20.8%	20.1%	19.0%	18.0%

CAGR 2019-26 on Pharma R&D Spend +3.2%. Cumulative 10 year R&D Spend (2010-19) $1,528bn.

Table 13: NME Approvals per Year (2007-2019)
Source: EvaluatePharma, June 2020

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Number of NMEs	25	31	35	26	35	44	35	51	56	27	55	62	53
Spend per NME ($bn)	4.9	4.2	3.6	4.9	3.9	3.1	4.0	2.8	2.7	5.9	3.1	2.9	3.5
Spend per NME ($bn) (3 year lag)*				4.7	3.7	2.9	3.7	2.7	2.4	5.1	2.6	2.4	3.0

2019 FDA approved novel drug count includes 48 drugs approved by Centre for Drug Evaluation and Research (CDER) and 5 drugs approved by the Centre for Biologic Evaluation and Research (CBER).

Note: 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 2019 figure of $3bn is the R&D expense in 2016 divided by the number of NMEs in 2019.
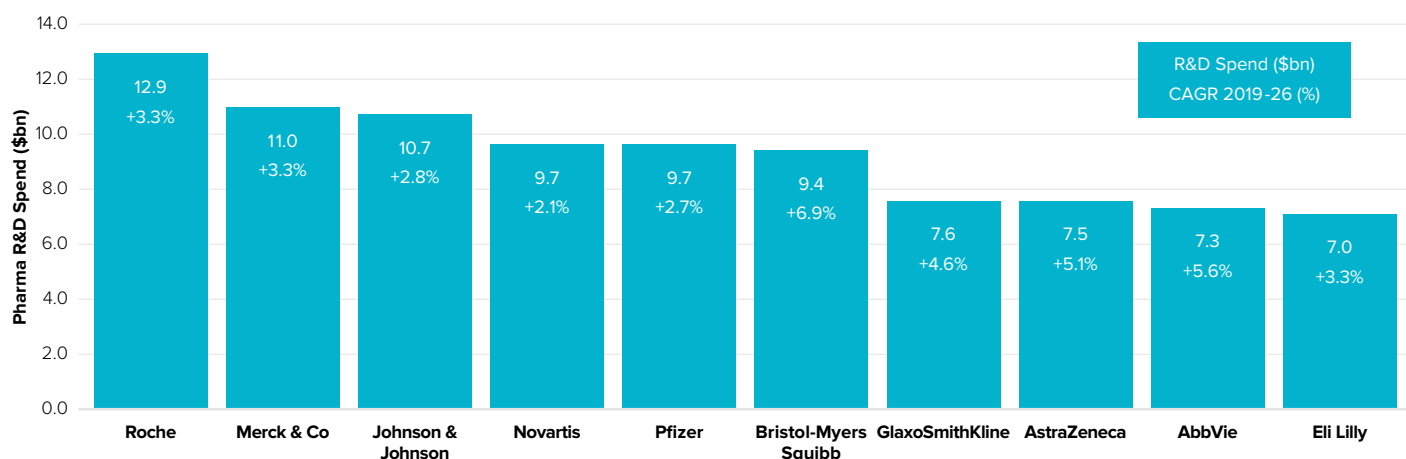
Pharmaceutical R&D Spend in 2026: Top 10 Companies

Roche leads as biggest spender on pharmaceutical R&D in 2026.

EvaluatePharma® finds that Roche considerably outspends its competitors to claim the position as the forecast top spender on pharma R&D in 2026, with a spend of $12.9bn. Of the top 10, Eli Lilly is forecast to invest the highest percentage of prescription (Rx) sales on R&D in 2026 with 22.7%. With regards to R&D expenditure vs. total Rx sales, GlaxoSmithKline and Pfizer are increasing their spend by 0.9% and 0.7% respectively, while the general trend for the top 10 is in the opposite direction, with Eli Lilly and AstraZeneca

reducing their spend by 5.2% and 4.6% respectively. The trend suggests that the top pharma companies are increasing their R&D efficiencies, potentially through collaborative R&D and utilising artificial intelligence, but also highlights that companies may be investing heavily in R&D now to see return on their investment in the longer term. Bristol-Myers Squibb is forecast to have the highest growth in pharma R&D spend of the top 10, likely a result of taking on Celgene operations. Overall, total R&D spend is expected to increase at a CAGR of 3.2%, reaching $232.5bn in 2026.

Figure 10: Pharmaceutical R&D in 2026: Top 10 Companies

Source: EvaluatePharma, June 2020

Table 14: Pharmaceutical R&D Spend (2019 & 2026): Top 10 Companies & Total Market

Source: EvaluatePharma, June 2020

Rank	Company	Pharma R&D ($bn)		CAGR 2019-26	R&D As a % of Prescription Sales		
		2019	2026		2019	2026	Chg. (+/-)
1.	Roche	10.3	12.9	+3.3%	21.3%	21.2%	-0.1pp
2.	Merck & Co	8.7	11.0	+3.3%	21.3%	20.6%	-0.7pp
3.	Johnson & Johnson	8.8	10.7	+2.8%	22.0%	19.1%	-3.0pp
4.	Novartis	8.4	9.7	+2.1%	18.2%	17.7%	-0.4pp
5.	Pfizer	8.0	9.7	+2.7%	18.2%	18.9%	+0.7pp
6.	Bristol-Myers Squibb	5.9	9.4	+6.9%	23.4%	21.0%	-2.4pp
7.	GlaxoSmithKline	5.5	7.6	+4.6%	17.7%	18.6%	+0.9pp
8.	AstraZeneca	5.3	7.5	+5.1%	22.9%	18.3%	-4.6pp
9.	AbbVie	5.0	7.3	+5.6%	15.4%	13.9%	-1.6pp
10.	Eli Lilly	5.6	7.0	+3.3%	27.9%	22.7%	-5.2pp
	Total Top 10	71.6	**92.8**	+3.8%	21.6%	20.4%	-1.2pp
	Other	114.6	**139.7**	+2.9%			
	Total	186.1	**232.5**	+3.2%	21.4%	16.7%	-4.6pp

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

Worldwide Prescription Drug & OTC Sales by Therapy Area in 2026

Oncology set to remain as the largest therapy area in 2026.

Oncology was the largest therapy area in 2019, and it prevails as the leading therapy area in 2026, with a 21.7% market share and sales forecast to reach $311.2bn. The growth of oncology sales can be partly attributed to the growth of the immuno-oncology class, which is set to grow at a CAGR of 20.2% between 2019 and 2026, driven largely by the growth of the PD-1 inhibitors Keytruda and Opdivo. Within oncology, the sales of immuno-oncology agents and protein kinase inhibitors are set to make up 66% of sales in 2026.
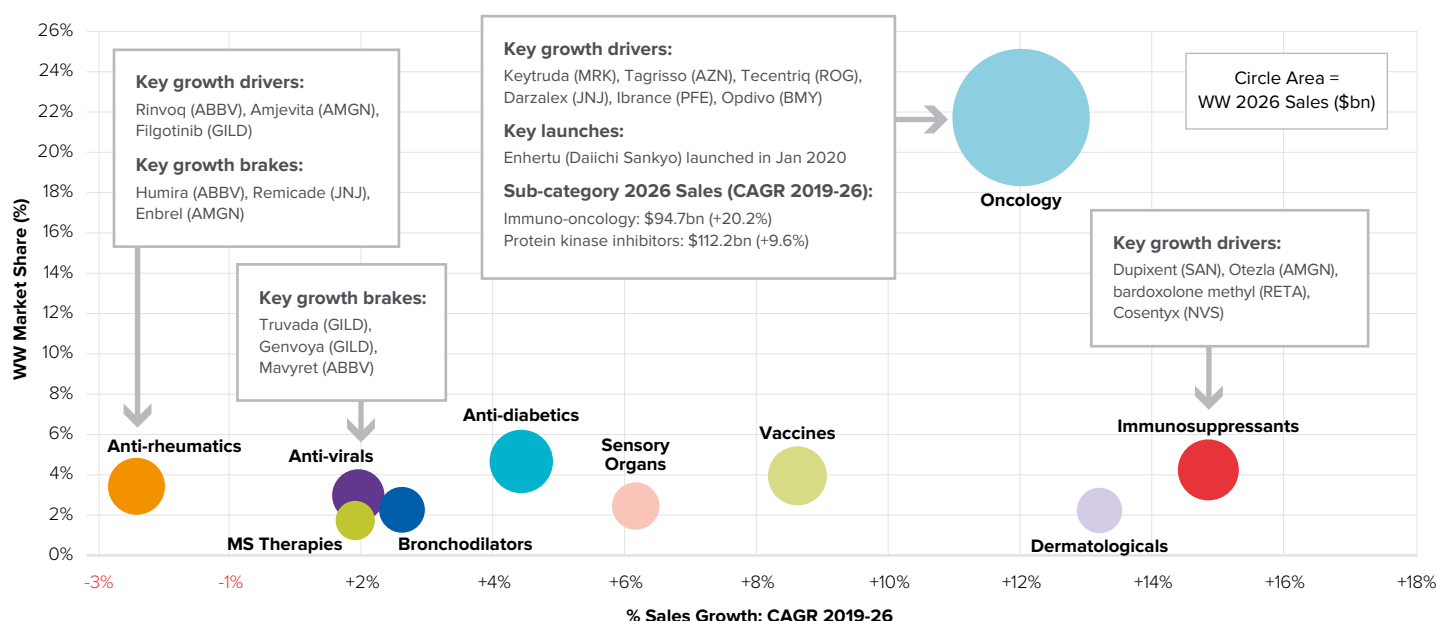
With a CAGR of 14.3% from 2019 to 2026, immunosuppressants is the therapy area with the highest growth rate over this period,

largely due to the wide utility of immunotherapeutic agents across different therapy areas, with sales growth driven by Sanofi's Dupixent, Amgen's Otezla (acquired from Celgene pre-BMS acquisition), Reata Pharmaceuticals' bardoxolone methyl and Novartis' Cosentyx.

The anti-rheumatics sector is expected to decline with a CAGR of -1.9% from 2019 to 2026, resulting in sales of $49.7bn. The decrease in this area can be attributed to the entry of biosimilars in the market for Enbrel, Remicade and Humira, the latter of which is set to lose exclusivity in the USA in 2023, with WW sales expected to drop by around $12.9bn between 2019 and 2026.

Figure 11: Top 10 Therapy Areas in 2026, Market Share & Sales Growth

Source: EvaluatePharma, June 2020

Key growth drivers:
Rinvoq (ABBV), Amjevita (AMGN), Filgotinib (GILD)
Key growth brakes:
Humira (ABBV), Remicade (JNJ), Enbrel (AMGN)

Key growth brakes:
Truvada (GILD), Genvoya (GILD), Mavyret (ABBV)

Key growth drivers:
Keytruda (MRK), Tagrisso (AZN), Tecentriq (ROG), Darzalex (JNJ), Ibrance (PFE), Opdivo (BMY)
Key launches:
Enhertu (Daiichi Sankyo) launched in Jan 2020
Sub-category 2026 Sales (CAGR 2019-26):
Immuno-oncology: $94.7bn (+20.2%)
Protein kinase inhibitors: $112.2bn (+9.6%)

Circle Area = WW 2026 Sales ($bn)

Key growth drivers:
Dupixent (SAN), Otezla (AMGN), bardoxolone methyl (RETA), Cosentyx (NVS)

Table 15: Worldwide Prescription Drug & OTC Sales by Evaluate Therapy Area (2019 & 2026): Top 15 Categories & Total Market

Source: EvaluatePharma, June 2020

Rank	Therapy Area	WW Sales ($bn) 2019	2026	CAGR % Growth	WW Market Share 2019	2026	Chg. (+/-)	Rank Chg. (+/-)
1.	Oncology	145.4	311.2	+11.5%	16.0%	21.7%	+5.8pp	+0
2.	Anti-diabetics	51.0	66.9	+3.9%	5.6%	4.7%	-0.9pp	+1
3.	Immunosuppressants	24.0	61.3	+14.3%	2.6%	4.3%	+1.6pp	+4
4.	Vaccines	32.5	56.1	+8.1%	3.6%	3.9%	+0.3pp	+1
5.	Anti-rheumatics	56.9	49.7	-1.9%	6.3%	3.5%	-2.8pp	-3
6.	Anti-virals	38.8	42.9	+1.5%	4.3%	3.0%	-1.3pp	-2
7.	Sensory Organs	23.8	35.1	+5.7%	2.6%	2.4%	-0.2pp	+1

Worldwide Prescription Drug & OTC Sales by Therapy Area in 2026

Rank	Therapy Area	WW Sales ($bn)		CAGR % Growth	WW Market Share		Chg. (+/-)	Rank Chg. (+/-)
		2019	2026		2019	2026		
8.	**Bronchodilators**	27.8	32.2	+2.1%	3.1%	2.3%	-0.8pp	-2
9.	**Dermatologicals**	13.8	32.0	+12.7%	1.5%	2.2%	+0.7pp	+3
10.	**MS therapies**	22.7	25.0	+1.4%	2.5%	1.7%	-0.7pp	+0
11.	**Anti-hypertensives**	23.4	22.4	-0.6%	2.6%	1.6%	-1.0pp	-2
12.	**Anti-coagulants**	21.3	22.0	+0.5%	2.3%	1.5%	-0.8pp	-1
13.	**Anti-psychotics**	11.2	21.0	+9.5%	1.2%	1.5%	+0.2pp	+2
14.	**Anti-fibrinolytics**	13.4	19.7	+5.7%	1.5%	1.4%	-0.1pp	-1
15.	**Sera & gammaglobulins**	11.5	19.5	+7.8%	1.3%	1.4%	+0.1pp	-1
	Top 15	517.5	816.9	+6.7%	56.9%	57.1%	+0.2pp	
	Other	392.5	614.6	+6.6%	43.1%	42.9%	-0.2pp	
	Total WW Prescription & OTC Sales	**910.0**	**1,431.5**	+6.7%	100.0%	100.0%		
	Total 'Prescription & OTC Sales' includes:							
	WW Generic Sales	**79.5**	**100.7**	+3.4%	8.7%	7.0%	-1.7%	
	OTC Pharmaceuticals	**38.3**	**41.4**	+1.1%	4.2%	2.9%	-1.3%	

Note: Sales in 2019 based on company reported data. Sales forecasts to 2026 based on a consensus of leading equity analysts' estimates for product sales and segmental sales.

Keytruda remains king; outselling its rivals by two-fold in 2026.

EvaluatePharma's consensus forecast data indicates Keytruda will continue to dominate sales to become the top selling drug in the world in 2026 with sales of $24.9bn, almost double that of its nearest rival. Whilst it was the second highest selling drug in 2019, previously eclipsed by AbbVie's Humira, Keytruda saw seven FDA approvals in 2019, allowing it to continue to pull away from fellow PD-1 antibody Opdivo, which ranks in 2nd place in 2026. Opdivo has seen a flatlining of quarterly sales since the middle of 2018, however, the sell-side consensus forecasts an acceleration of sales to hit $12.7bn in 2026. Bristol-Myers Squibb's Eliquis is a close third with analysts predicting $12.6bn in sales of the anticoagulant in 2026. Humira finally drops out of the top 10, following adalimumab biosimilar introduction Europe and pending loss of exclusivity in the USA.

Pfizer's blockbuster breast cancer treatment Ibrance sits in 6th place with $9.7bn in sales and a CAGR of 10.0%, climbing from 10th place in last year's 2024 rankings. Similarly, Sanofi's Dupixent, which dropped out of the top 10 last year, sees a resurgence into 8th place with a $9.4bn sales forecast, despite recent strong phase III data from Eli Lilly's rival drug, lebrikizumab. Analysts have been impressed by strong growth in the atopic dermatitis therapy area, as well as plans to launch the anti-IL-4 & IL-13 MAb in a further 89 countries in 2020. Vertex's flagship cystic fibrosis drug Trikafta also enters the top 10 following its FDA approval in October 2019, showing very impressive growth with a 54.3% CAGR and $8.7bn sales forecast in 2026.

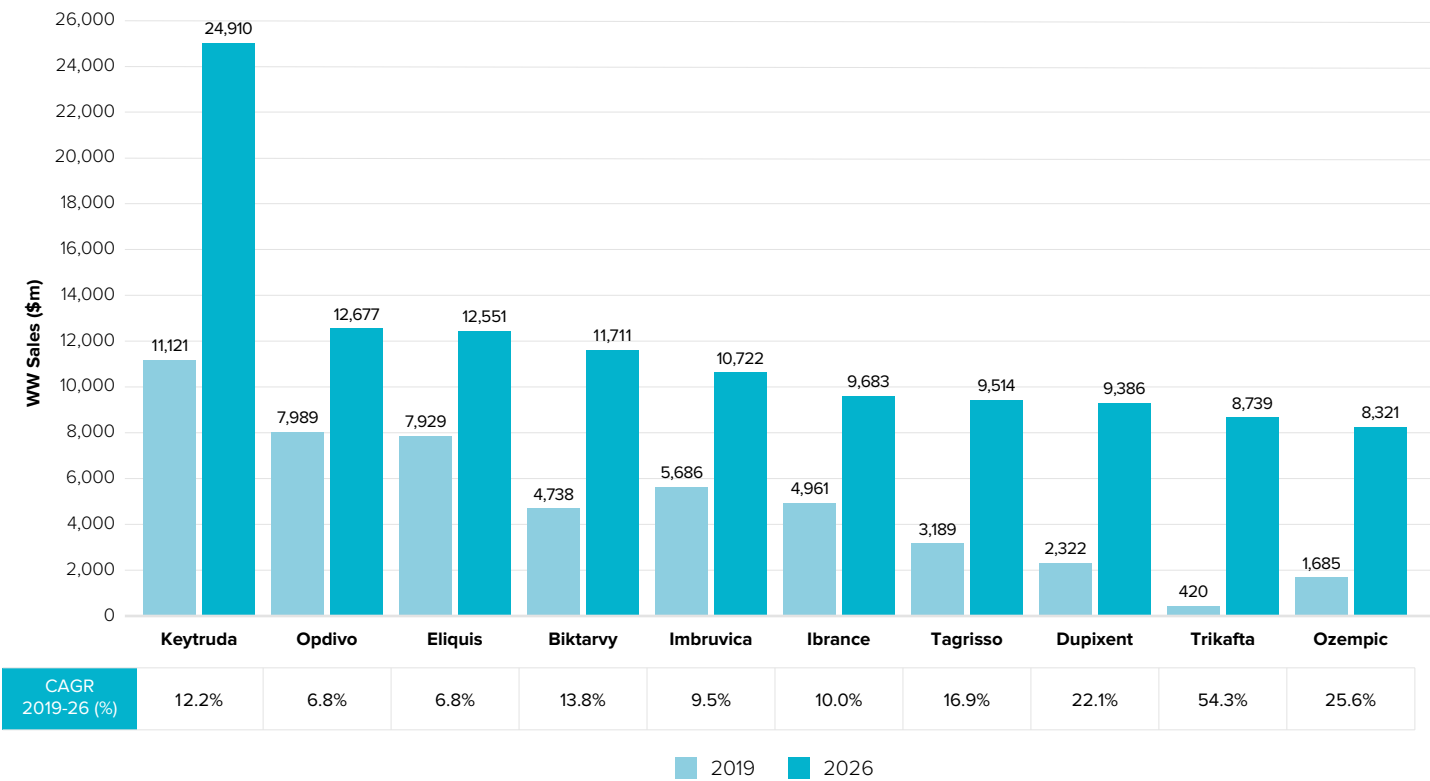## Table 16: Top 10 Selling Products WW in 2026

Source: EvaluatePharma, June 2020

Rank	Product	Generic Name	Company	Mechanism of Action	WW Product Sales ($m)			Market Status
					2019	2026	CAGR	
1.	**Keytruda**	pembrolizumab	Merck & Co + Otsuka Holdings	Programmed cell death protein 1 (PD1) antibody	11,121	24,910	+12.2%	Marketed
2.	**Opdivo**	nivolumab	Bristol-Myers Squibb + Ono Pharmaceutical	Programmed cell death protein 1 (PD1) antibody	7,989	12,677	+6.8%	Marketed
3.	**Eliquis**	apixaban	Bristol-Myers Squibb	Coagulation factor Xa inhibitor	7,929	12,551	+6.8%	Marketed
4.	**Biktarvy**	bictegravir sodium; emtricitabine; tenofovir alafenamide fumarate	Gilead Sciences	HIV-1 integrase inhibitor; HIV-1 nucleoside reverse transcriptase inhibitor (NRTI)	4,738	11,711	+13.8%	Marketed
5.	**Imbruvica**	ibrutinib	AbbVie + Johnson & Johnson	Bruton's tyrosine kinase (BTK) inhibitor	5,686	10,722	+9.5%	Marketed
6.	**Ibrance**	palbociclib	Pfizer	Cyclin-dependent kinase 4 (CDK4) inhibitor; Cyclin-dependent kinase 6 (CDK6) inhibitor	4,961	9,683	+10.0%	Marketed
7.	**Tagrisso**	osimertinib mesylate	AstraZeneca	Epidermal growth factor receptor (EGFR) inhibitor	3,189	9,514	+16.9%	Marketed
8.	**Dupixent**	dupilumab	Sanofi	Interleukin-13 (IL-13) antibody; Interleukin-4 (IL-4) antibody	2,322	9,386	+22.1%	Marketed
9.	**Trikafta**	elexacaftor; ivacaftor; tezacaftor	Vertex Pharmaceuticals	Cystic fibrosis transmembrane conductance regulator (CFTR) potentiator; Cystic fibrosis transmembrane conductance regulator (CFTR) regulator	420	8,739	+54.3%	Marketed
10.	**Ozempic**	semaglutide	Novo Nordisk	Glucagon-like peptide 1 (GLP-1) receptor agonist	1,685	8,321	+25.6%	Marketed
	Total				**50,040**	**118,214**	**+13.1%**	
	Total WW Individual Products Forecast in EvaluatePharma®				**709,060**	**1,156,341**	**+7.2%**	

Note: Sales represent company reported sales where available, otherwise based on an average of equity analyst estimates.

Figure 12: Top 10 Selling Products WW in 2026

| CAGR 2019-26 (%) | 12.2% | 6.8% | 6.8% | 13.8% | 9.5% | 10.0% | 16.9% | 22.1% | 54.3% | 25.6% |

Legend: 2019, 2026

Keytruda leads the pack; Biktarvy and Eliquis complete top three.

As in the world rankings, Merck's blockbuster drug Keytruda is set to be the top selling product in the USA in 2026, with $12.7bn sales forecast. Claiming second place in the table is Gilead's Biktarvy, with forecasts looking rosy for the drug, which is currently the number one prescribed regimen across all HIV patients in the USA. Eliquis sales continue to grow into 2026, leading it to complete the top three, with analysts noting opportunities for Bristol-Myers Squibb's drug to continue its growth and convert patients currently using warfarin.

AbbVie's BTK inhibitor Imbruvica sits in 4th place. The drug saw strong sales in 2019 driven by increased patient uptake globally, primarily in chronic lymphocytic leukaemia (CLL), leading analysts to upgrade their forecasts for 2026 to $6.7bn. Keytruda's rival PD-1 antibody, Opdivo, is in 6th with a comparatively slow CAGR of 5.0%. Novo Nordisk's Ozempic rises to 7th place with an impressive CAGR of 22.7%, with analysts excited about accelerating uptake in the USA following launch in February 2018, plus potential launches in obesity and nonalcoholic steatohepatitis (NASH) in 2021 and 2023 respectively. Trikafta enters the top 10 in 8th place with $6.0bn sales forecast in 2026 and the highest CAGR of the group at 46.2%. Previously EvaluatePharma's most valuable R&D project by NPV, the cystic fibrosis treatment has made a strong start with $420m sales in 2019, following its early FDA approval in October 2019, only three months after NDA application submission. Humira drops out of the top 10, despite AbbVie's successful litigation to delay biosimilar entry into the USA until 2023.

Table 17: Top 10 Selling Products in the USA in 2026
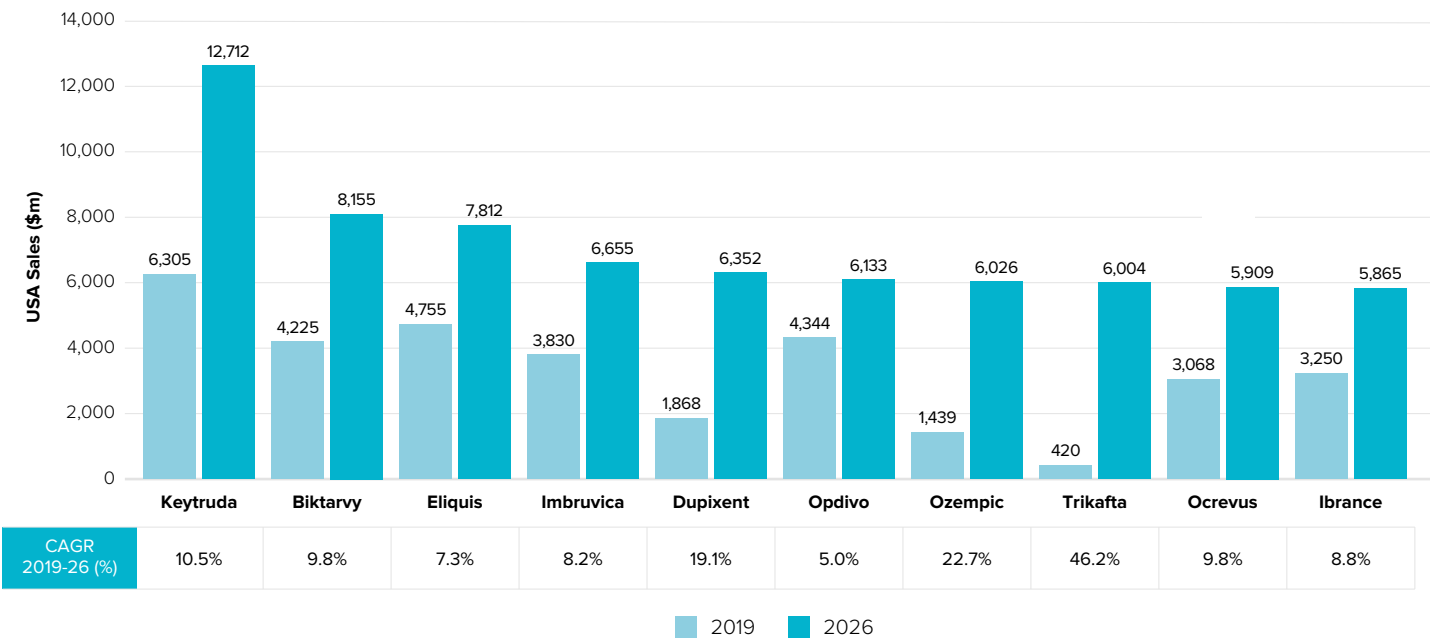
Source: EvaluatePharma, June 2020

Rank	Product	Generic Name	Company	Mechanism of Action	USA Product Sales ($m)			US Market Status
					2019	2026	CAGR	
1.	**Keytruda**	pembrolizumab	Merck & Co	Programmed cell death protein 1 (PD1) antibody	6,305	12,712	+10.5%	Marketed
2.	**Biktarvy**	bictegravir sodium; emtricitabine; tenofovir alafenamide fumarate	Gilead Sciences	HIV-1 integrase inhibitor; HIV-1 nucleoside reverse transcriptase inhibitor (NRTI)	4,225	8,155	+9.8%	Marketed
3.	**Eliquis**	apixaban	Bristol-Myers Squibb	Coagulation factor Xa inhibitor	4,755	7,812	+7.3%	Marketed
4.	**Imbruvica**	ibrutinib	AbbVie	Bruton's tyrosine kinase (BTK) inhibitor	3,830	6,655	+8.2%	Marketed
5.	**Dupixent**	dupilumab	Sanofi	Interleukin-13 (IL-13) antibody; Interleukin-4 (IL-4) antibody	1,868	6,352	+19.1%	Marketed
6.	**Opdivo**	nivolumab	Bristol-Myers Squibb	Programmed cell death protein 1 (PD1) antibody	4,344	6,133	+5.0%	Marketed
7.	**Ozempic**	semaglutide	Novo Nordisk	Glucagon-like peptide 1 (GLP-1) receptor agonist	1,439	6,026	+22.7%	Marketed
8.	**Trikafta**	elexacaftor; ivacaftor; tezacaftor	Vertex Pharmaceuticals	Cystic fibrosis transmembrane conductance regulator (CFTR) potentiator; Cystic fibrosis transmembrane conductance regulator (CFTR) regulator	420	6,004	+46.2%	Marketed
9.	**Ocrevus**	ocrelizumab	Roche	B-lymphocyte antigen CD20 antibody	3,068	5,909	+9.8%	Marketed
10.	**Ibrance**	palbociclib	Pfizer	Cyclin-dependent kinase 4 (CDK4) inhibitor; Cyclin-dependent kinase 6 (CDK6) inhibitor	3,250	5,865	+8.8%	Marketed
	Total				**33,505**	**71,622**	**+11.5%**	
	Total USA Individual Products Forecast in EvaluatePharma®				**358,392**	**639,754**	**+8.6%**	

Note: Sales represent company reported sales where available, otherwise based on an average of equity analyst estimates

Figure 13: Top 10 selling products in the USA in 2026

Source: EvaluatePharma, June 2020

CAGR 2019-26 (%)	Keytruda	Biktarvy	Eliquis	Imbruvica	Dupixent	Opdivo	Ozempic	Trikafta	Ocrevus	Ibrance
	10.5%	9.8%	7.3%	8.2%	19.1%	5.0%	22.7%	46.2%	9.8%	8.8%

Legend: 2019 / 2026

Evaluate

Evaluate provides trusted commercial intelligence for the pharmaceutical industry. We help our clients to refine and transform their understanding of the past, present and future of the global pharmaceutical market to drive better decisions. When you partner with Evaluate, our constantly expanding solutions and our transparent methodologies and datasets are instantly at your disposal, along with personalized, expert support.

Evaluate gives you the time and confidence to turn understanding into insight, and insight into action.

EvaluatePharma offers a global view of the pharmaceutical market's past, present and future performance with consensus forecasts to 2026, company financials, pipelines and deals.

EvaluatePharma Vision provides the first single view of the risk and return of the R&D landscape with consensus forecasts, R&D costs at drug and trial level, success rates, predictive timelines and trial outcomes.

EvaluateMedTech tracks, benchmarks, and forecasts global performance for the medical device and diagnostic industry with consensus forecasts to 2026, company financials and more.

Evaluate Custom Solutions improves your strategic decision-making with customized solutions and deep insights that draw on our industry expertise and trusted commercial intelligence.

Evaluate Vantage provides award-winning, thought-provoking news and insights into current and future developments in the industry, and is the only pharmaceutical news service underpinned by Evaluate's commercial intelligence.

www.evaluate.com | 🐦 **@EvaluatePharma** 🐦 **@EvaluateVantage**