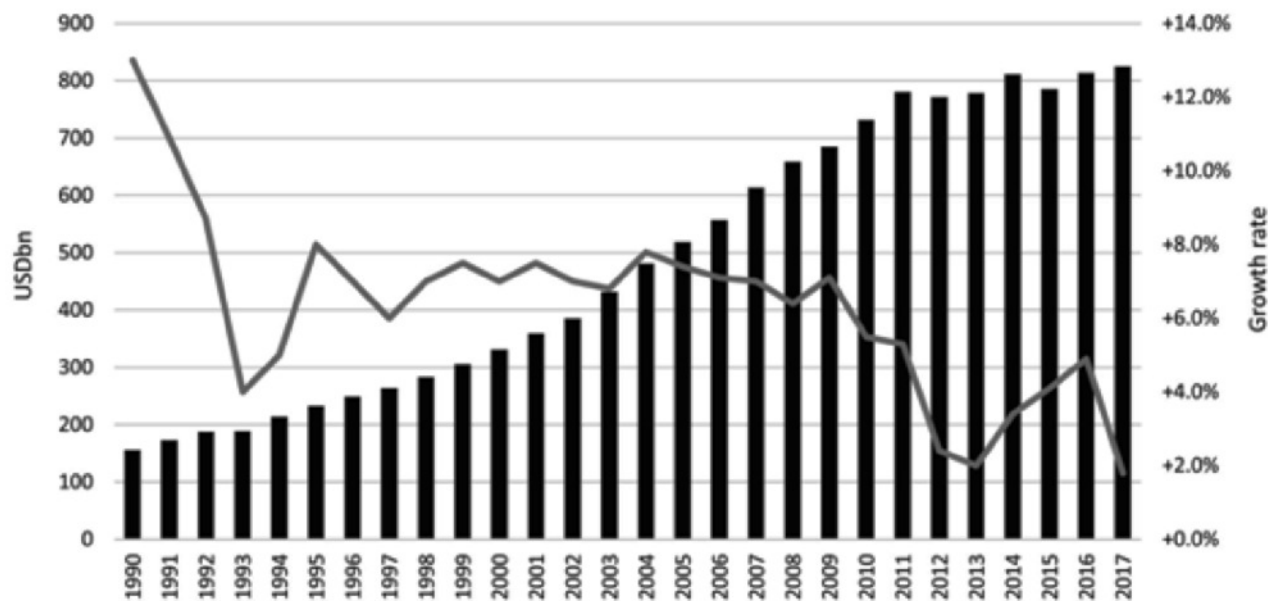


STATS WINDOW

Global Pharmaceuticals Statistics

- **Global market :** the worldwide prescription drug market had underlying growth of only 1.2% in 2017 to \$825bn, up from \$814bn in 2016. This contrasts with the 3% growth figure that has appeared in the annual reports of several drug companies.
 - **US market:** The US market was an important driver of growth, rising 1.8% to \$325bn in 2017, from \$319bn in 2016, representing 39.5% of the global market. The FDA approved a record number of new drugs in 2017, with 46 approvals, fulfilling the stated goal to improve the efficiency.
 - **Biopharmaceuticals:** The spend on drugs classified as biopharmaceuticals grew 7% to \$197bn in 2017; these drugs now represent ca.24% of the entire market.
- Within this category, drugs using antibody technology grew 16.6% to ca.\$100bn.
 - **Best -selling drugs:** Humira (AbbVie) remains the biggest drug, with ex- factory sales of \$18.4bn (+14.6%). The top 10 drugs in the world represent 9.5% of the entire market. On a cumulative basis, there are now six drugs in the \$100bn club.
 - **R&D investment:** The top 15 drug companies re - invested 20.3% of sales back into new drug development, spending \$86.6bn out of the total spend of \$117bn by the 40 largest companies. The average R&D spend was \$5.7bn, ranging from \$9.2bn (Roche) to \$3.3bn (Gilead).

Global prescription drug market – 1990-2017



Source: Hardman & Co Life Sciences Research

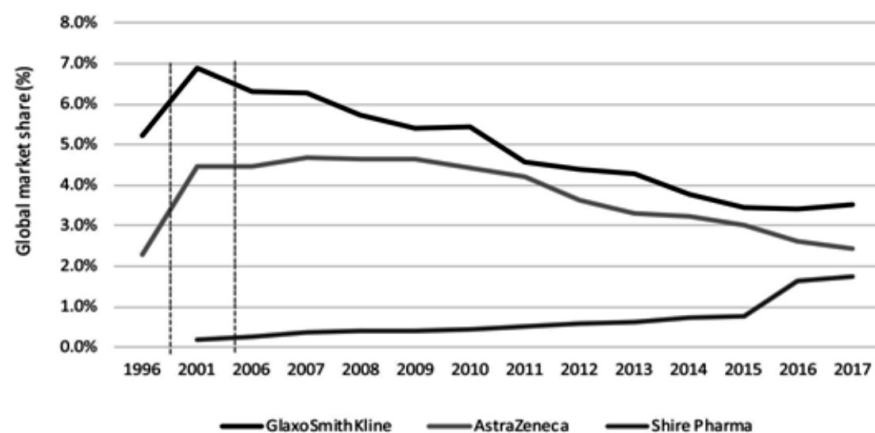
The US market has been an important contributor to growth. Based on companies that have reported to date, Hardman & Co estimates that the US prescription drug market increased 1.8% to \$325bn in 2017, up from \$319bn in 2016, and currently represents 39% of the global market.

Biopharmaceuticals

Within the overall global prescription market, drugs

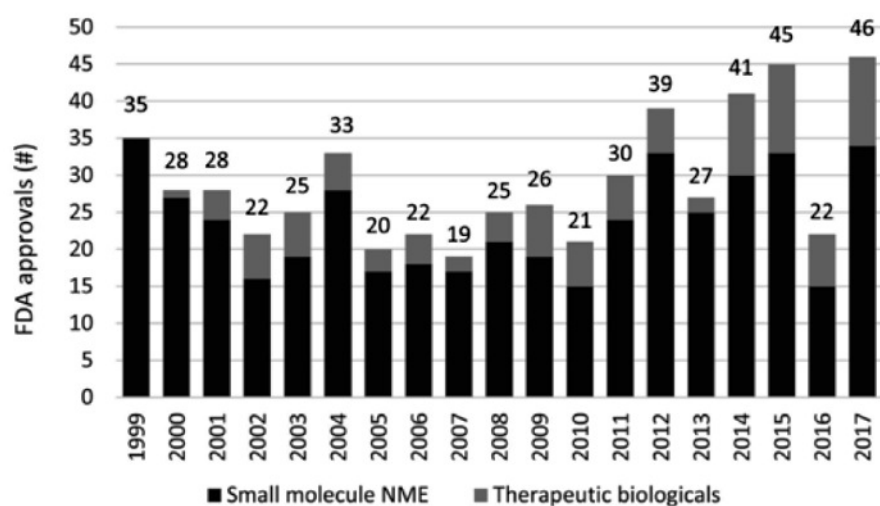
classified as biopharmaceuticals (ca.130 + vaccines) had reported sales of \$197bn in 2017, and now represent 24% of the entire market. The growth rate in 2017 was above average, at 6.9%. Every year since 2000, biopharmaceuticals have represented a greater proportion of the global pharmaceutical market. Over the last 10 years, the biopharmaceutical market has grown at a compound rate of 7.4%, compared with 2.0% for all other drugs.

Global market share – UK companies in world top 15



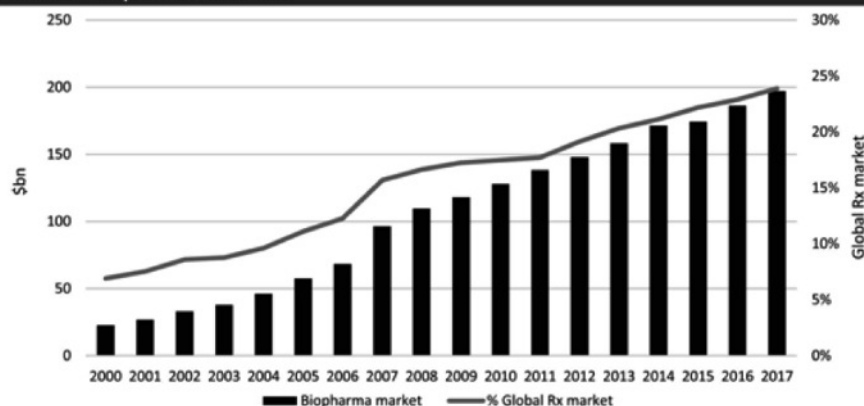
Source: Hardman & Co Life Sciences Research

FDA approvals



Source: FDA; Washington Analysis Group; Hardman & Co Life Sciences Research

Evolution of biopharmaceutical sales



Source: Hardman & Co Life Sciences Research



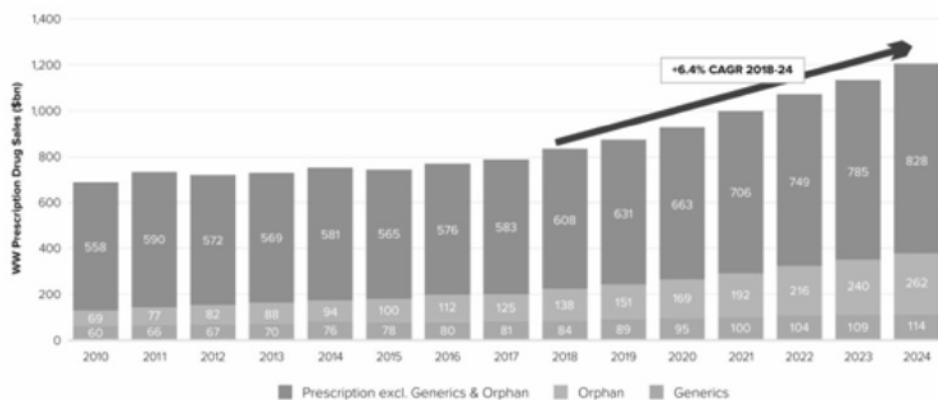
Worldwide Prescription Drug Sales (2010-2024)

Prescription drug sales CAGR for 2018 through 2024 six times that in 2011 through 2017; Orphan drug market to almost double. While prescription drug sales for 2011 through 2017 grew at a CAGR of only +1.2%, an annual CAGR of +6.4% is forecast for 2018 through 2024, with

prescription drug sales expected to reach \$1.2trn. Growth will be driven by the continued uptake and anticipated launch of novel therapies addressing key unmet needs, as well as increasing access to medicines globally. Payer scrutiny and sales losses from genericization and biosimilar competition will act as brakes on growth.

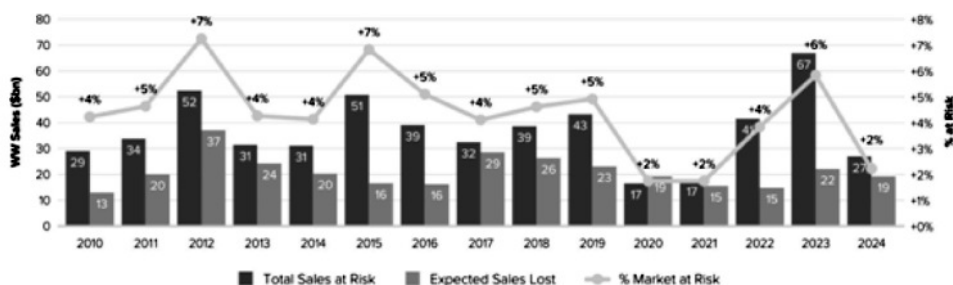
Worldwide Total Prescription Drug Sales (2010-2024)

Source: Evaluate, May 2018



Worldwide Sales At Risk from Patent Expiration (2010-2024)

Source: Evaluate, May 2018

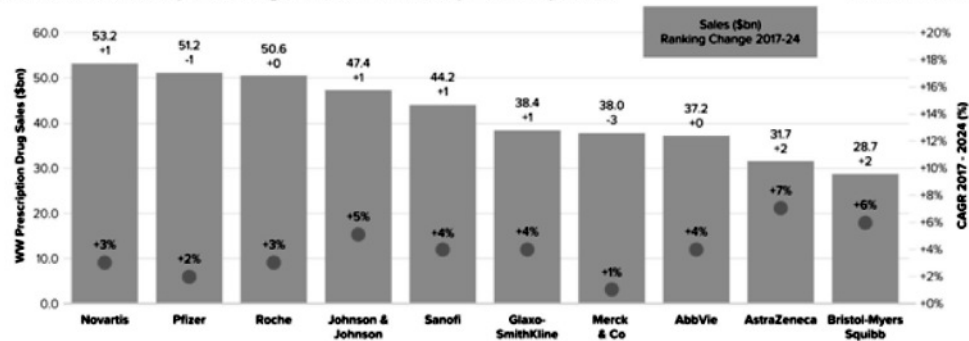


Worldwide Prescription Drug Sales in 2024: Top Companies

Novartis is forecast to record the highest worldwide sales of prescription drugs in 2024.

Worldwide Prescription Drug Sales in 2024: Top 10 Companies

Source: Evaluate, May 2018

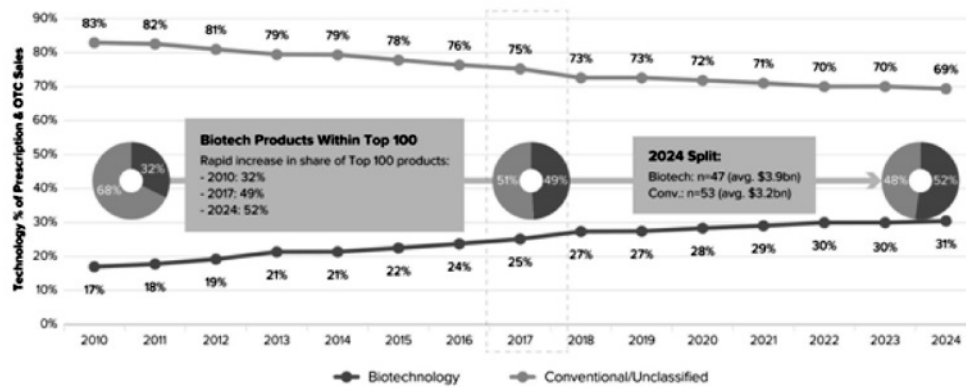


Biotechnology products increasingly contribute to sales, representing 52% of the top 100 product sales by 2024;

Roche is undoubtedly the biggest player within the Biotech market.

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

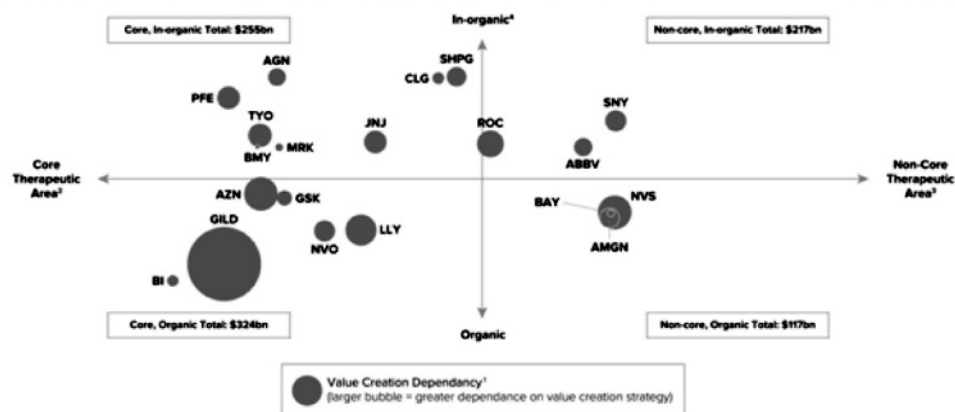
Source: Evaluate, May 2018



Worldwide Pharma Innovation: Value Creation Strategy

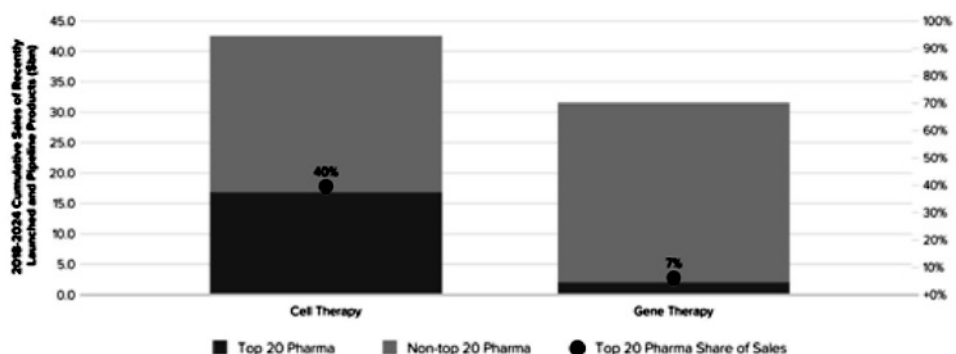
Pharma Top 20 Recently Launched and Pipeline Value Creation Strategy

Source: Evaluate, May 2018



Value Creation from Advanced Therapies

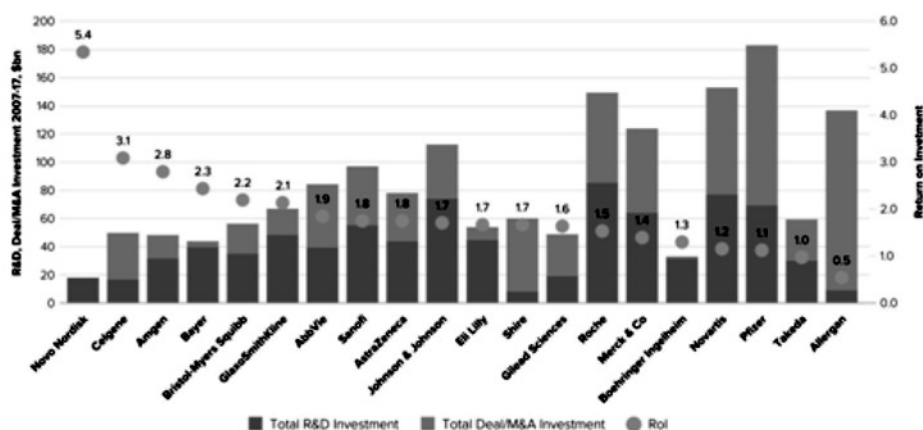
Source: Evaluate, May 2018



Worldwide Pharma Innovation: Return on Investment

Pharma Top 20 Prescription Sales, RoI Analysis¹ (RoI = Return on Investment²)

Source: Evaluate, May 2018



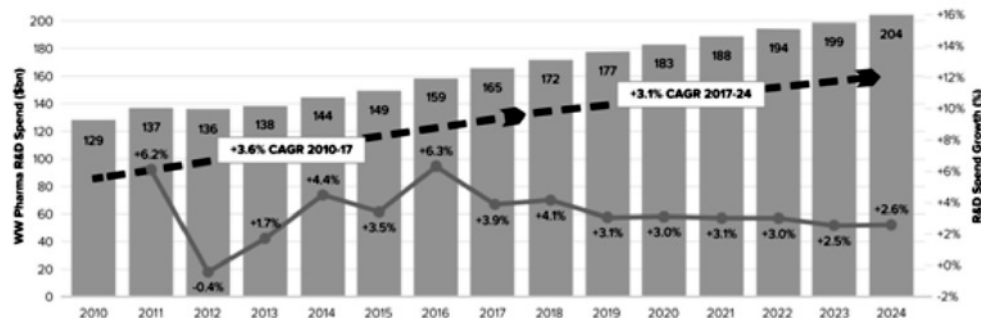
Worldwide R&D Spend by Pharma & Biotech Companies (2010-2024)

Worldwide pharmaceutical R&D spend totalled \$165bn in

2017 representing an increase of +3.9% on the previous year. Going forward, R&D spend is forecast to grow at a CAGR of 3.1% to 2024. This is lower than the CAGR of 3.6% between 2010 and 2017.

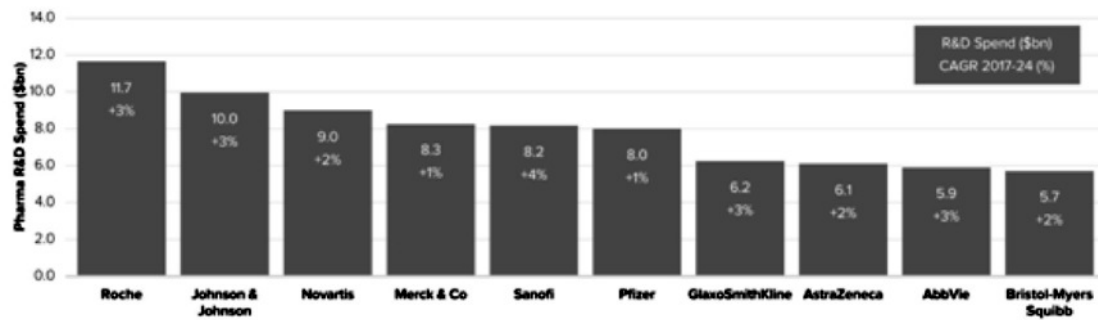
Worldwide Total Pharmaceutical R&D Spend in 2010-2024

Source: Evaluate, May 2018



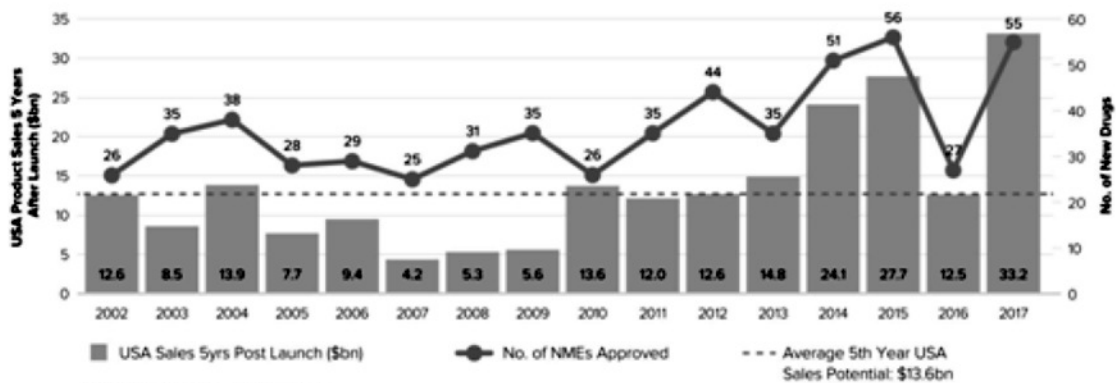
Pharmaceutical R&D in 2024: Top 10 Companies

Source: Evaluate, May 2018



FDA Approval Count vs. Total USA Product Sales 5 Years After Launch

Source: Evaluate, May 2018



Key Approvals in Top 7 Years

2002 Neulasta (AMGN), Abilify (Otsuka/BMS), Zetia (MRK/SGP), Humira (ABT)

2004 Avastin (Roche), Cymbalta (LLY), Spiriva (B/PFE), Lyrica (PFE)

2013 Tecfidera (BIB), Imbruvica (ABBV), Invokana (JNJ), Tricavay (GSK)

2014 Keytruda (MRK), Opdivo (BMY), Otezla (Celgene), Trulicity (LLY)

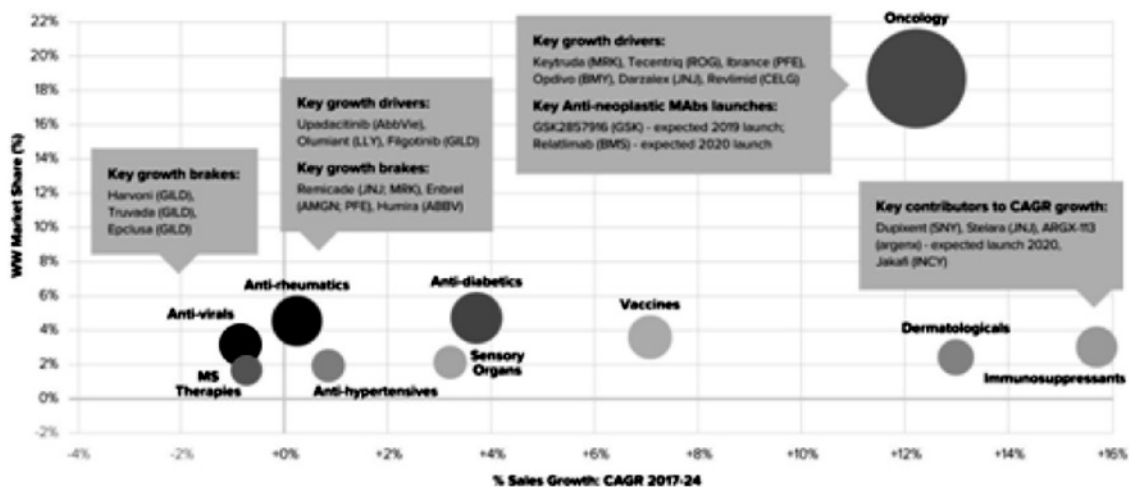
2015 Ibrance (PFE), Darzalex (JNJ), Genvoya (GILD), Cosentyx (NVS)

2016 Tecentriq (Roche), Venclexta (ABBV/Roche), Taltz (LLY), Xidra (Shire)

2017 Ocrevus (Roche), Dupixent (Sanofi), Ozempic (Novo Nordisk), Tremfya (JNJ)

Top 10 Therapy Areas in 2024, Market Share & Sales Growth

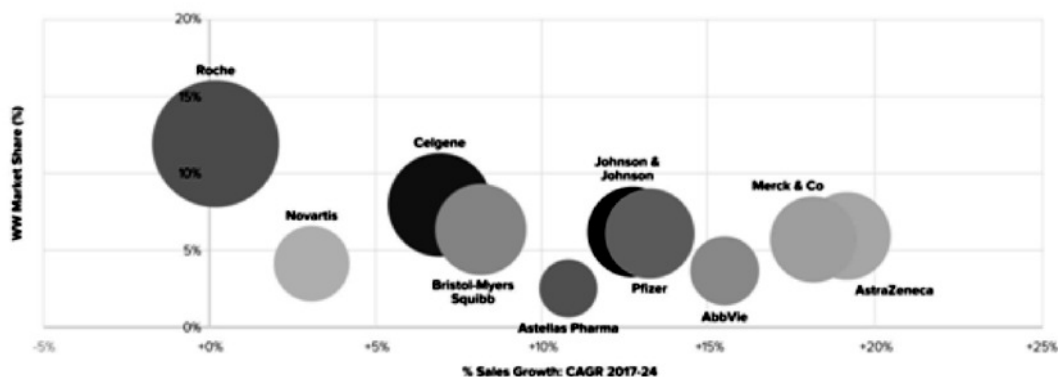
Source: Evaluate, May 2018



Oncology Market to 2024

Worldwide Sales, Market Share & Sales Growth (2017-2024)

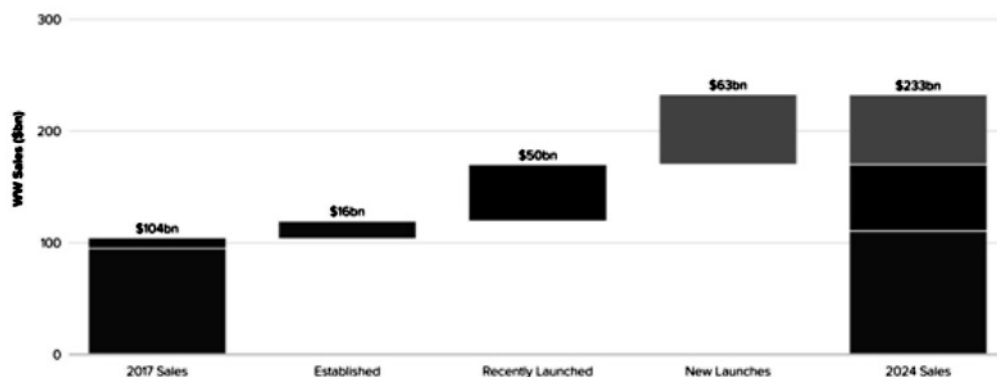
Source: Evaluate, May 2018



Note: Bubble = WW Sales in 2024

Product Segment Contribution to Sales in 2024

Source: Evaluate, May 2018

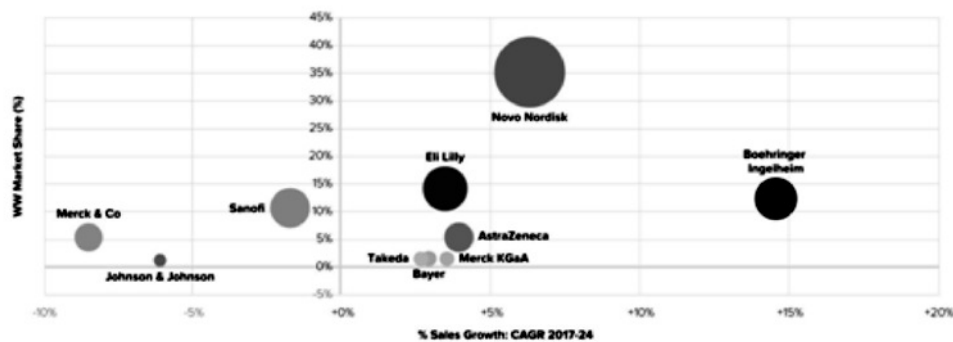


Note: Established: Launched prior to 2015 | Recently launched: 2015 to 2017 inclusive | New launches: New launches expected from 2018 | 2017 and 2024 sales reflect the sum of these categories.

Anti-Diabetics Market to 2024

Worldwide Sales, Market Share & Sales Growth (2017-2024)

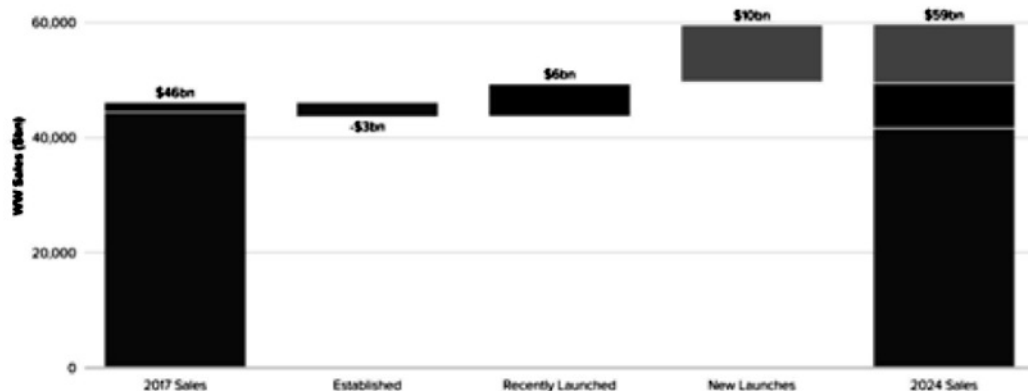
Source: Evaluate, May 2018



Note: Bubble = WW Sales in 2024

Product Segment Contribution to Sales in 2024

Source: Evaluate, May 2018

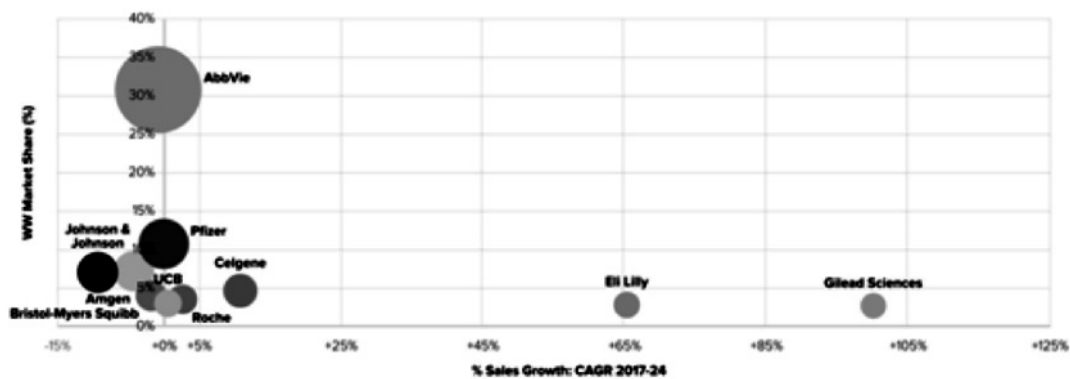


Note: Established: Launched prior to 2015 | Recently launched: 2015 to 2017 inclusive | New launches: New launches expected from 2018 | 2017 and 2024 sales reflect the sum of these categories.

Anti-Rheumatics Market to 2024

Worldwide Sales, Market Share & Sales Growth (2017-2024)

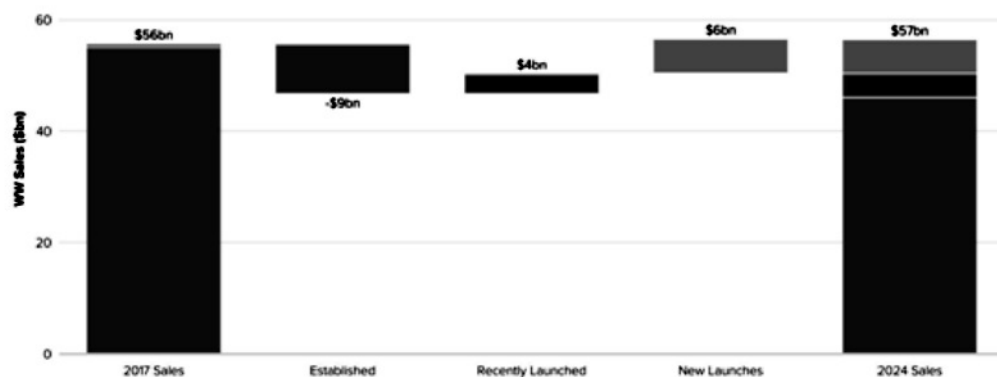
Source: Evaluate, May 2018



Note: Bubble = WW Sales in 2024

Product Segment Contribution to Sales in 2024

Source: Evaluate, May 2018

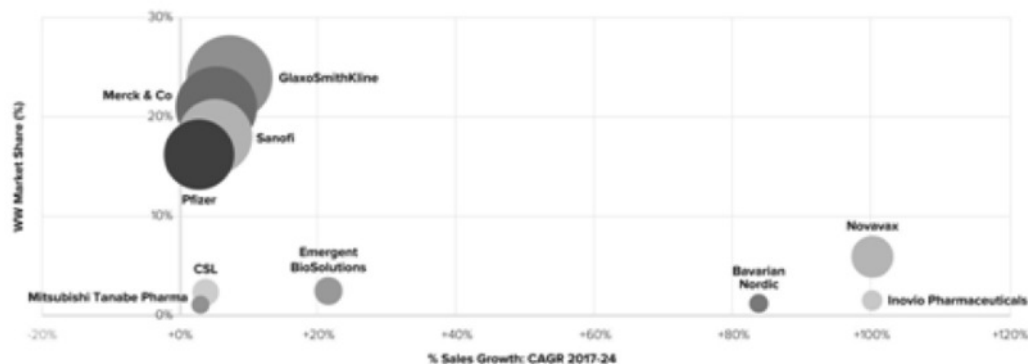


Note: Established: Launched prior to 2015 | Recently launched: 2015 to 2017 inclusive | New launches: New launches expected from 2018 | 2017 and 2024 sales reflect the sum of these categories.

Vaccines Market to 2024

Worldwide Sales, Market Share & Sales Growth (2017-2024)

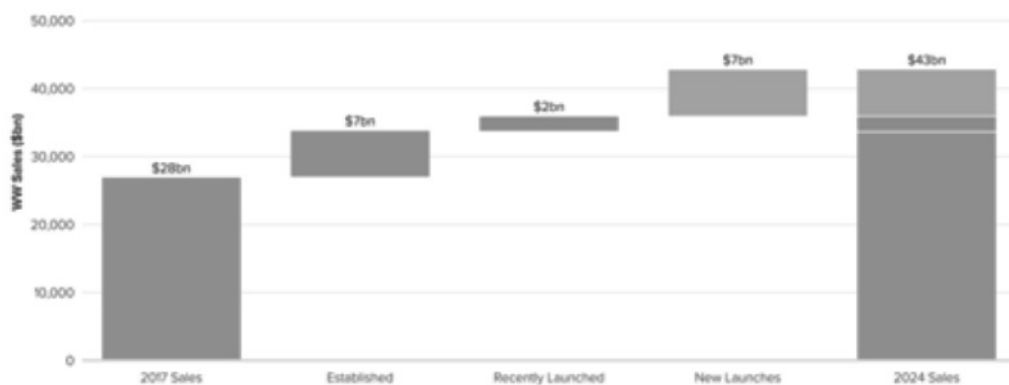
Source: Evaluate, May 2018



Note: Bubble = WW Sales in 2024

Product Segment Contribution to Sales in 2024

Source: Evaluate, May 2018

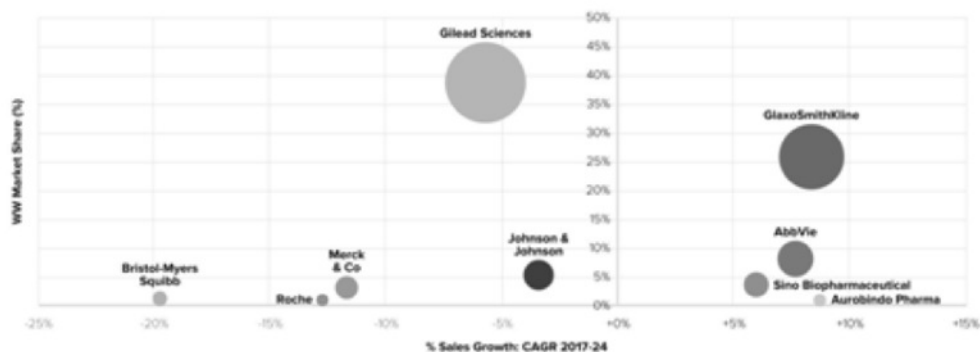


Note: Established: Launched prior to 2015 | Recently launched: 2015 to 2017 inclusive | New launches: New launches expected from 2018 | 2017 and 2024 sales reflect the sum of these categories.

Anti-Virals Market to 2024

Worldwide Sales, Market Share & Sales Growth (2017-2024)

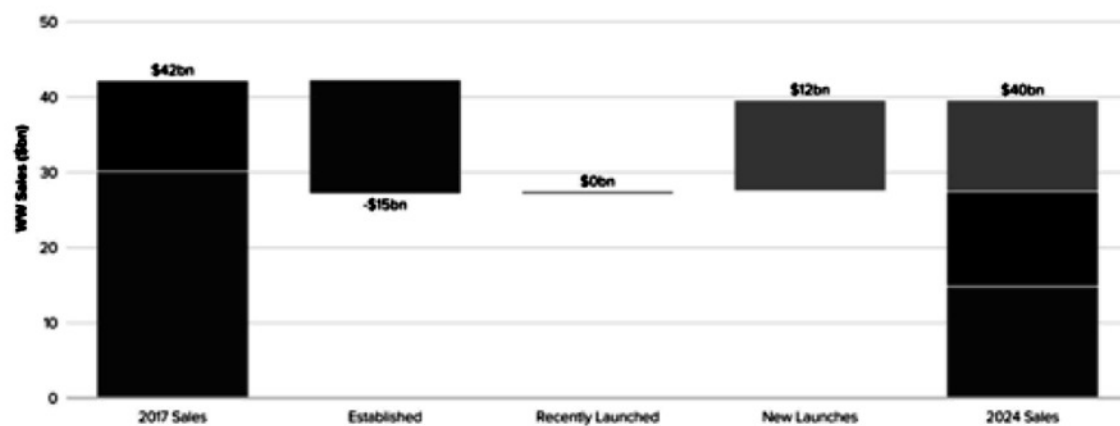
Source: Evaluate, May 2018



Note: Bubble = WW Sales in 2024

Product Segment Contribution to Sales in 2024

Source: Evaluate, May 2018



Note: Established: Launched prior to 2015 | Recently launched: 2015 to 2017 inclusive | New launches: New launches expected from 2018 | 2017 and 2024 sales reflect the sum of these categories.