

EvaluatePharma®

World Preview 2018, Outlook to 2024

Executive Summary



Analysis Highlights

- Prescription drug sales expected to reach \$1.2trn in 2024, due to novel therapies addressing key unmet needs, as well as increasing access to medicines globally.
 Payer scrutiny and sales losses from genericization and biosimilars will act as brakes on growth
- Novartis will be the leading prescription drug company in 2024 with sales of \$53.2bn, ahead of Pfizer and Roche, both of whom are closely competing for the second spot
- Should Takeda complete its intended acquisition of Shire and forecast projections for a combined portfolio hold, the combined entity would be the 9th largest pharmaceutical company based on 2024 sales
- Vertex's triple combination, VX-659 + tezacaftor + ivacaftor, is anticipated to be the most valuable project in the pharmaceutical industry pipeline with \$13,070m NPV
- R&D spend is forecast to grow at a CAGR of 3.1% to 2024 lower than the CAGR of 3.6% between 2010 and 2017, signalling expectations that companies will be improving R&D efficiencies or less revenue will be directed towards replenishing pipelines
- For the top 20 pharma companies, organic value creation focused on core therapeutic areas is forecast to deliver greatest value gain over 2018 and 2024 with cumulative sales of \$324bn
- Humira remains the top selling drug in 2024, despite a CAGR of -3% over the next 7 years, due to adalimumab biosimilar entry in the USA being delayed to 2023

Worldwide Prescription Drug Sales (2008-2022)



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.

The orphan drugs sector is expected to outperform the market, almost doubling in size over 2018-2024 and peaking at \$262bn in 2024, accounting for approximately 20% of prescription sales. This highlights the industry's continued move to address small groups of neglected patients with high unmet need and to benefit from traditionally reduced payer scrutiny on orphan drugs, as well as regulatory and financial incentives.

Gene and cell therapies will also increasingly contribute to growth, building on the approval and launch of CAR-T therapies in 2017 and the

launch of Luxturna (Spark Therapeutics), the first FDA approved gene therapy for vision loss, in 2018.

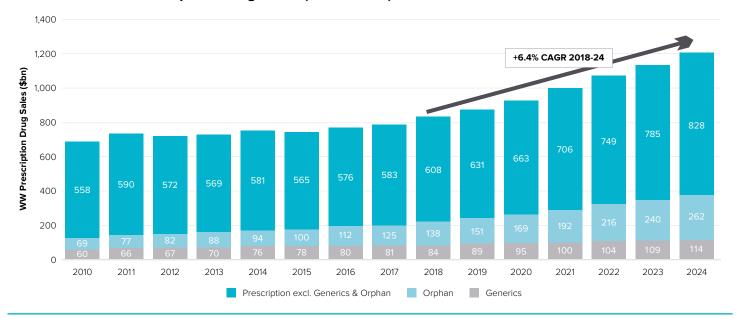
However, recent industry set-backs in the immuno-oncology space with Incyte's Epacadosat failing to make a case for combination immunotherapy highlights the inherent risk of developing novel therapies and are indicative of why diversity across the industry is healthy.

Drug affordability and accessibility continue to apply downward pressure on the market with payers, including those in the USA, acting to limit prescribing options to drugs which provide sufficient real-world value. A continued trend will be the industry's response to this pressure in ensuring the development of value-based pricing and reimbursement approaches that de-risk healthcare budgets and clinical programmes that reflect the demands of payers (e.g. outcomes data).

There are also \$251bn of sales at risk between 2018 and 2024, with more than 25% of these in 2023, when key patents of several biologics including Humira and Stelara will expire. However, both are still forecast to retain spots among the World's top 10 selling drugs in 2024.

Worldwide Total Prescription Drug Sales (2010-2024)

Source: Evaluate, May 2018



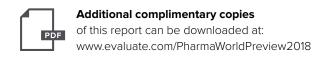
Worldwide Sales At Risk from Patent Expiration (2010-2024)

Source: Evaluate, May 2018



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.





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Evaluate Headquarters

Evaluate Ltd. 11-29 Fashion Street London E1 6PX United Kingdom T +44 (0)20 7377 0800

F+44 (0)20 7539 1801

Evaluate Americas

EvaluatePharma USA Inc. 60 State Street, Suite 1910 Boston, MA 02109 USA

T +1 617 573 9450 F+16175739542

Evaluate Asia Pacific

T +81 (0)80 1164 4754

Evaluate Japan KK Akasaka Garden City 4F 4-15-1 Akasaka, Minato-ku Tokyo 107-0052 Japan