APPROVED FDA DRUGS I

A DEEP DIVE INTO KEY ELEMENTS

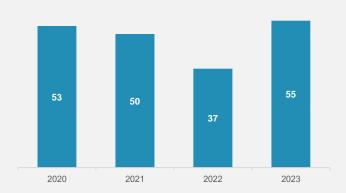
In 2023, the FDA's Center for Drug Evaluation and Research (CDER) approved 55 new drugs, a nearly 50% surge from 2022, owing to the variability caused by the absence of COVID-related inspection delays. Outperforming all other companies, Pfizer received seven approvals, achieving twice the accomplishments of the past three years. Oncology and neurology topped the charts for number of approvals, receiving 13 and 9 approvals each.

Current Landscape: Approved Drugs in 2023

A total of 55 drugs and 16 gene therapies were approved by the FDA in 2023. By brand criteria, Pfizer accomplished the maximum number of approvals, and by therapy area, oncology was the leading segment in number of approvals attained.

Number of FDA Approvals in 2023

2020-present



- In 2023, the FDA's CDER approved 55 new drugs, marking a nearly 50% increase compared to the 2022 approvals.
- The 10-year average for CDER approvals is now at 46 per year, the highest in over two decades.
- The variation in approvals between 2022 and 2023 may be attributed to COVID-related inspection delays affecting some approvals.
- Pfizer secured seven FDA approvals in 2023, surpassing any other company and doubling the achievements of drugmakers over the past three years.
- The FDA maintained a consistent pace, granting approvals for an expanding array of cell and gene therapies, vaccines, and blood products.

Number of FDA Approvals by Therapy Area



- Neurology
- Infectious Diseases
- Haematology



- category for approvals, with CDER granting approval for 13 (24%) new cancer therapies in 2023.
- Following closely, neurology secured the second position with nine (16%) approvals, in line with recent patterns.

In terms of therapeutic area, oncology remains the leading

Infectious diseases and hematology shared the third spot, each receiving approval for 5 (9%) therapies.

Oncology Segment: Highlights

Company	Highlight	
AstraZeneca	 Astra Zeneca's first-in-class AKT inhibitor received approval in combination with fulvestrant for metastatic breast cancer. Analysts forecast peak sales of around USD 690 Mn for the drug. 	
SpringWorks*	 SpringWorks announced its first γ-secretase inhibitor received FDA approval for rare desmoid tumors from. The annual peak sales of around USD 650 Mn are forecast for the drug. 	
Johnson-Johnson	 The initial approval for multiple myeloma of the first GPRC5D x CD3-targeted T-cell engager, a bispecific antibody that mobilizes T-cells for cancer cell elimination, has been granted to J&J. The drug is anticipated to achieve approximately USD 260 Mn in annual peak sales. 	
GSK	 Approval has been granted for a JAK1/JAK2/ACVR1 inhibitor targeting myelofibrosis patients experiencing anemia. Analysts project peak sales to reach USD 930 Mn for the drug. 	

Gene Therapies Approved in 2023: Key Highlights

Bluebird bio's SCD gene therapy, **Lyfgenia**, Beremagene's **geperpavec**, and **Casgevy**, the CRISPR–Cas9 gene editor for sickle cell disease were amongst the notable gene therapies that received FDA approval

- CBER approved the first **CRISPR-Cas9-based gene editor, Casgevy (exagamglogene autotemcel)**, for sickle cell disease (SCD). It's an ex vivo gene-edited cell therapy using BCL11a transcription factor modification.
- Bluebird bio's SCD gene therapy, Lyfgenia (lovotibeglogene autotemcel), gained approval. It uses a lentiviral vector system to insert a transgene and is priced at USD 3.1 Mn.
- Krystal Biotech's beremagene geperpavec received approval for dystrophic epidermolysis bullosa (DEB), the first gene therapy for topical use in a re-dosable format.
- CellTrans's donislecel (Lantidra) became the first FDA-approved cell therapy for type 1 diabetes patients unable to approach target HbA1c levels.
- Seres Therapeutics' and Nestlé's Vowst got FDA approval for preventing Clostridioides difficile recurrence, the first pharmaceuticalgrade orally administered faecal microbiota product.

New Entrants for Approval: Expected Timelines for 2024

Sponsor	Indication	Expected Approval
Astellas	Gastric cancer	January
lovance	Melanoma	February
Madrigal/Synta	NASH	March
Merck & Co./Acceleron	PAH	March
Moderna	RSV prevention	April
Eli Lilly	Alzheimer disease	Q1
Abeona	RDEB	May
Merck & Co.	NSCLC	June
Geron	Transfusion-dependent anaemia	June

- Astellas's zolbetuximab offers a modestly effective option for metastatic gastric cancer, addressing a claudin-18.2-targeted pipeline.
- Madrigal's resmetirom, a thyroid hormone receptor β agonist, aims to be the first therapy for non-alcoholic steatohepatitis following Intercept's setbacks.

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HOW CAN ARANCA HELP?

O1 Current and Future Landscape: Current treatments and latest pipeline landscape assessment for a particular therapy area

Humanistic, Economic Burden, and Unmet
 Need Analysis: Impact of a disease on the patient's mental and economic well-being

Diagnosis and Treatment Paradigm: Analysis
 of diagnosis and treatment algorithm adopted
 in clinical practice

Health Technology Assessment: Analysis of various HTA decisions published by various countries



