EvaluatePharma

# Technology > Biotechnology | Cell therapy
# WW

**Published on** 31 January 2019

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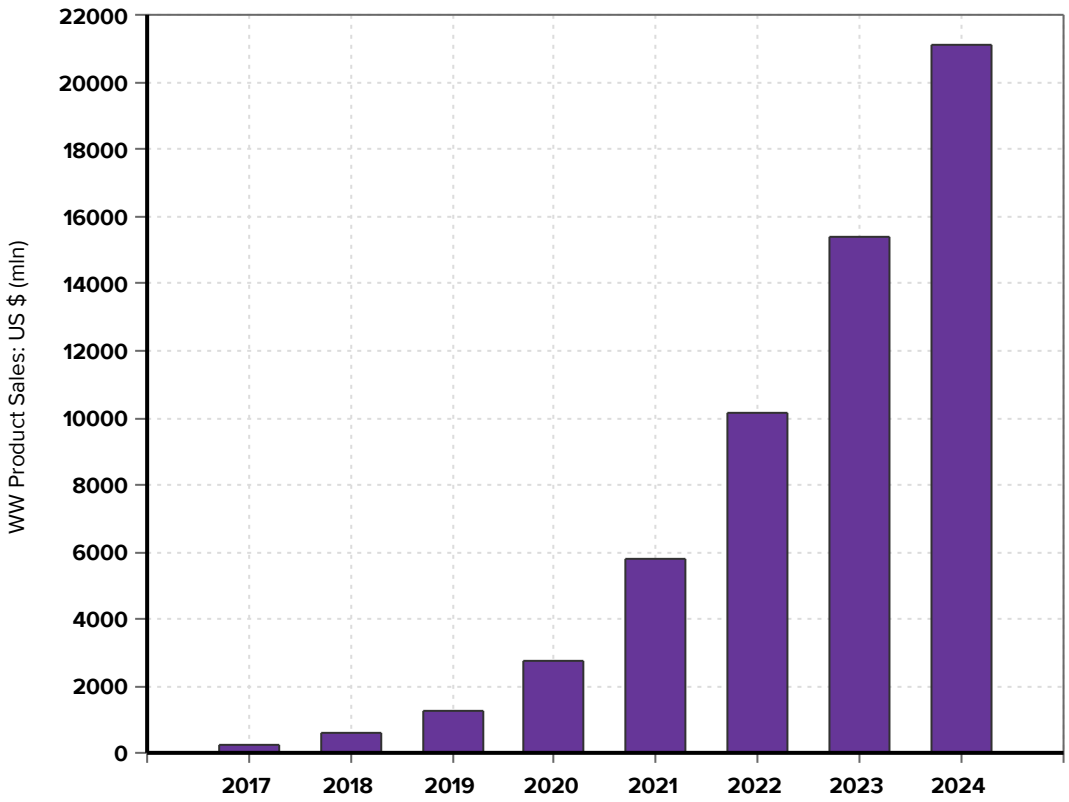
# Total Value of Technology Area




**Currency:** US $ (mln)

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# Summary: Top 20 in 2024

| | | | | ANNUAL SALES WW - SALES | | | |
|---|---|---|---|---|---|---|---|
| RANK [1] | PRODUCT | COMPANY | PHARMACOLOGICAL CLASS | 2017 | 2024 ▼ | | WW PHASE (CURRENT) |
| 1 | Yescarta | Gilead Sciences | Anti-CD19 chimeric antigen receptor (CAR) T cell therapy | 7 [2] | 1,936 | | Marketed |
| 2 | MultiStem | Athersys | Anti-tumour necrosis factor (TNF) cell therapy | - | 1,760 | | Phase III |
| 3 | Liso-cel | Celgene | Anti-CD19 chimeric antigen receptor (CAR) T cell therapy | - | 1,479 | | Phase III |
| 4 | Kymriah | Novartis | Anti-CD19 chimeric antigen receptor (CAR) T cell therapy | 6 [3] | 993 | | Marketed |
| 5 | MPC-150-IM | Mesoblast | Mesenchymal cell therapy | - | 827 [4] | | Phase III |
| 6 | NurOwn Program One | BrainStorm Cell Therapeutics | Mesenchymal bone marrow stromal cell therapy | - | 725 | | Phase III |
| 7 | ReN001 | Undisclosed Partner Sales | Stem cell therapy | - | 718 | | Phase II |
| 8 | SB623 | Sumitomo Dainippon Pharma | Mesenchymal cell therapy | - | 699 | | Phase II |
| 9 | AUTO2 | Autolus | Anti-chimeric antigen receptor (CAR) T cell therapy | - | 572 | | Phase II |
| 10 | LN-144 | Iovance Biotherapeutics | Anti-cancer cell therapy | - | 563 | | Phase II |
| 11 | AUTO3 | Autolus | Anti-CD22 & CD19 chimeric antigen receptor (CAR) T cell therapy | - | 504 | | Phase II |
| 12 | Alofisel | Takeda | Adipose-derived stem cell (ADSC) therapy | - | 495 | | Marketed |
| 13 | SB623 | SanBio | Mesenchymal cell therapy | - | 406 | | Phase II |
| 14 | bb2121 | bluebird bio | Anti-B-cell maturation antigen (BCMA) & chimeric antigen receptor (CAR) T cell therapy | - | 399 | | Phase III |
| 15 | tab-cel | Atara Biotherapeutics | Cytotoxic T-lymphocyte cell therapy | - | 395 | | Phase III |
| 16 | ATIR101 | Kiadis Pharma | Immunosupressant cell therapy | - | 387 | | Filed |
| 17 | Habeo Cell Therapy | Cytori Therapeutics | Adipose cell therapy | - | 386 | | Phase III |
| 18 | ReN003 | Undisclosed Partner Sales | Stem cell therapy | - | 382 | | Phase II |
| 19 | AlloJoin | Cellular Biomedicine Group | Mesenchymal cell therapy | - | 368 | | Phase I |
| 20 | CYAD-01 | Celyad | NKG2D chimeric antigen receptor (CAR) T cell therapy | - | 363 | | Phase II |
| **Other** | | | | **208** | **6,748** | | |
| **Total** [5] | | | | **221** | **21,102** | | |

# Count of Products by Phase

| | PRODUCT COUNT (COMPANY RECORD) |
|---|---|
| **Cell therapy** | |
| Active | |
| Marketed | 116 |
| Approved | 2 |
| Filed | 2 |
| Phase III | 69 |
| Phase II | 289 |
| Phase I | 266 |
| Pre-clinical | 603 |
| Research project | 420 |
| Total (Active) | **1,767** |
| Inactive | |

**Currency:** US $ (mln)

| | PRODUCT COUNT (COMPANY RECORD) |
|---|---|
| Withdrawn | 9 |
| Disposed - Marketed | 14 |
| Transferred (M&A) - Marketed | 32 |
| Suspended - Phase II | 2 |
| Suspended - Phase I | 1 |
| Abandoned - Filed | 2 |
| Abandoned - Phase III | 23 |
| Abandoned - Phase II | 134 |
| Abandoned - Phase I | 87 |
| Abandoned - Pre-clinical | 252 |
| Abandoned - Research project | 199 |
| Disposed - Filed | 1 |
| Disposed - Phase III | 5 |
| Disposed - Phase II | 8 |
| Disposed - Phase I | 8 |
| Disposed - Pre-clinical | 7 |
| Disposed - Research project | 1 |
| Transferred (M&A) - Filed | 2 |
| Transferred (M&A) - Phase III | 4 |
| Transferred (M&A) - Phase II | 47 |
| Transferred (M&A) - Phase I | 32 |
| Transferred (M&A) - Pre-clinical | 80 |
| Transferred (M&A) - Research project | 42 |
| Total (Inactive) | **992** |
| Total (Cell therapy) [6] | **2,759** |

**References**

Source: Evaluate Ltd

## Notes

1 Ranked on:

Annual Sales WW

2024

2 Data Source:

Gilead Sciences FY 2017 Results Presentation (06 FEB 2018).

Company Comment:

Source: Gilead Sciences 2017 10-K, Page 4:

In October 2017, Yescarta, a CAR T cell therapy, was approved by FDA, making it the first CAR T cell therapy for the treatment of adult patients with relapsed or refractory large B-cell lymphoma after two or more lines of systemic therapy, which includes diffuse large B-cell lymphoma (DLBCL) not otherwise specified, primary mediastinal B-cell lymphoma (PMBCL), high-grade B-cell lymphoma, and DLBCL arising from follicular lymphoma (transformed follicular lymphoma or TFL). We expect European Commission approval of Yescarta during the first half of 2018. Additional studies of Yescarta for other indications are underway.

Page 13:

Axicabtagene ciloleucel is being evaluated for the treatment of second line diffuse large B-cell lymphoma.

Axicabtagene ciloleucel is being evaluated for the treatment of indolent non-Hodgkin lymphoma. Axicabtagene ciloleucel is also being evaluated for the treatment of diffuse large B-cell lymphoma in combination with anti-PD-L1 mAB.

KTE-C19, a CAR T cell therapy, is being evaluated for the treatment of mantle cell lymphoma.

KTE-C19 is being evaluated for the treatment of adult and pediatric acute lymphoblastic leukemia.

3 Data Source:

Novartis FY 2018 Financial Report (30 JAN 2019).

Company Comment:

Source: Novartis 2017 20-F, Page 46:

Kymriah (tisagenlecleucel, formerly CTL019) suspension for intravenous infusion is a CD19-directed genetically modified autologous chimeric antigen receptor T (CAR-T) cell therapy. Kymriah is approved in the US for the treatment of patients up to

25 years of age with B-cell precursor acute lymphoblastic leukemia that is refractory or in second or later relapse.

Page 55-56:

CTL019 (tisagenlecleucel, approved in the US as Kymriah) is a CD19-directed genetically modified autologous chimeric antigen receptor T (CAR-T) cell therapy that uses the patient's own immune system to fight certain types of cancer. CARs are engineered proteins that enable a patient's own T cells to seek out specific target proteins present on a patient's cancerous tumor. When these cells are re-introduced into the patient's blood, they demonstrate the potential to bind to the cancer cells and destroy them. CTL019 targets a protein called CD19 that is associated with a number of B-cell malignancies. In August 2017, the FDA approved CTL019 as Kymriah for the treatment of patients up to 25 years of age with B-cell precursor acute lymphoblastic leukemia (ALL) that is refractory or in second or later relapse. Kymriah is also currently under regulatory review in the US for the treatment of adult patients with relapsed/refractory diffuse large B-cell lymphoma (DLBCL), the most common type of non-Hodgkin lymphoma. In the EU, the EMA is reviewing the CTL019 Marketing Authorization Application for the treatment of adult patients with relapsed/refractory DLBCL ineligible for autologous stem cell transplantation and for pediatric and young adult patients with relapsed/refractory ALL. At the American Society of Hematology Annual Meeting in December 2017, Novartis presented data from the primary analysis of the pivotal, Phase II JULIET trial that CTL019 sustained complete responses at six months in adults with relapsed/refractory DLBCL. CTL019 is also expected to enter Phase II development for adult patients with relapsed/refractory follicular lymphoma who have failed at least two prior systemic therapies. A Phase III study in second-line use in adult patients with DLBCL after first relapse is also being planned. Clinical trials in these patient populations are anticipated to begin in 2018. In January 2018, the FDA granted Priority Review for Kymriah for the treatment of adults with relapsed or refractory DLBCL who are ineligible for or relapse after autologous stem cell transplant (ASCT). Also in January 2018, the EMA granted accelerated assessment for CTL019 for the treatment of children and young adults with relapsed or refractory B-cell acute lymphoblastic leukemia, and for adult patients with relapsed or refractory DLBCL who are ineligible for ASCT. Novartis and the University of Pennsylvania's Perelman School of Medicine, which developed this CD19-directed CAR T cell therapy, have a global collaboration to research, develop and commercialize CAR-T therapies for the investigational treatment of cancers.

4 EvaluatePharma® Comment:

Revenue forecasts are split between end-user sales and royalties to reflect the difference of opinion amongst analysts.

5 Group Total: Equals the sum of values in report based on report grouping.

Note: Where Top 5,10,100 etc filters have been applied, the aggregate value relates to the total of the original unfiltered group - not the displayed filtered data. Where n/a appears, a value has been hidden but is included in Group Total.

Examples:

e.g. Top 100 drugs reports. These are not grouped but are filtered to show only the top 100 products by sales in a particular year. The Group Total displayed is equal to the sum of all data within Evaluate Pharma - not just the top 100 products i.e. total market size.

e.g. Global Majors - Top 10 products. Report is grouped by Company and filtered to show only the top 10 products by sales in a particular year. Group Totals are displayed for each company and are equal to the sum of all available data for that company - not just the top 10 products.

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# GLOSSARY

## Components

### Annual Sales WW

Related to a product, annual worldwide net sales are presented for both historic and forecast years. The sales presented are total net sales of the product for a particular company and are not indication specific.

Historic Sales

As disclosed by the company or analyst estimates in absence of company disclosed figures. Any currency conversions are at the average year rates.

Forecast Sales

A consensus forecast based on analyst reports.

### Company

Related to Products, this item details the company name for which product data is available.

### Pharmacological Class

Related to a product, this item describes the pharmacological activity/mode of action of the compound, if known.

### Product

Related to a product, this item details either the name used for the largest global market (independent of first launch), or for R&D products, the name most commonly referred to worldwide.

### Product Count (Company Record)

Related to Products, include this field to generate an automated count of the number of unique Product records, per Company, in a report. On selecting this field for a report, you must tick the 'Show Data Aggregates' box under the 'View Options' section of the edit report page, in order to show the count.

### Product Status

Related to a product, this item details whether a product is Active or Inactive within a company's current product portfolio.

### Technology

Related to a product, this item is a two tiered classification based on technology employed by the product.

### WW Market Status (Current)

Related to a product, this item provides a two tiered classification of the current status of a product within the product lifecycle.

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