Introducing PharmaKB

The Pharmaceutical Knowledgebase from Collaborative Drug Discovery, Inc.
Summary

PharmaKB provides daily data to make informed decisions about the values and risks of pharmaceutical companies based on the performance of their commercial and developing drug programs.

Data includes:

- Tickers
- Revenues per Drug
- Stage of Development
- Probability of Trial Success
- Length of Clinical Trials
- Competitive Companies and Drugs by Disease Market and Target
- Patent Cliffs
- Exclusivity Periods
- Disease Population Size
- Drug Prescribing & Pricing
- Research Publication Trends
- Safety Signals
- and Many Other Factors.

With PharmaKB,

- Analyze 1700+ pharma companies (600+ mapped to tickers) with 450+ ranging from 100M to 400B market cap.
- Evaluate investment options with access to daily pharmaceutical trends, including financials, R&D milestones, and competitive intelligence.
- Track market changes and get alerted to shifts in the competitive landscape, such as new drug entries into disease areas, patents, trials, revenues.
- Sharpen stock and revenue prediction confidence via quantitative data and time series methods, including competitive drugs, patent cliffs, trials, publications, and adverse events, trial success probabilities, epidemiological data, and more.
Alternative Pharmaceutical Data to Track Milestones & Performance Metrics

Companies
1700+ (~600 tickers)
(~500 ranging from 100M to 400B Market Cap)

Diseases
4000+ (Competitive Markets)

Drugs
4600+ (Products)
PharmaKB collects and curates information from 100’s of sources Updated Daily!

Regulatory
- FDA
  - U.S. FOOD & DRUG ADMINISTRATION
  - FDA Adverse Event Reporting System (FAERS) Public Dashboard
- NIH
  - National Library of Medicine
  - ClinicalTrials.gov BETA
- European Medicines Agency
  - Human regulatory

Scientific & Technical
- ChEMBL
- UniProt
- RCSB PDB
  - 198,747 Structures from PDB
  - 1,003,361 Computed Models (CSM)
- National Library of Medicine
  - PubChem
  - PubMed

Financial & IP
- Pfizer
- Bristol Myers Squibb
- Boehringer Ingelheim
- Allergan
  - an AbbVie company
- AstraZeneca
- gsk
- MERCK
- teva
- ARENA Pharmaceuticals
- SANOFI
- Lilly
- Novartis
- abbvie
- BAYER
- J&J
- Roche
- Beiersdorf
- Astellas
- janssen
- Takeda
- TYRA

Many more…

and more

Original Pharma Co SEC Reporting & Patent Filing
Access Content via 3 Methods

**Web Application**
(Dashboards & File Downloads)

- Company View
- Drug View
- Disease View
  (competitive landscape)

**API Access**
(All Data)

- GraphiQL

**Custom Data Portal**
(PharmaKB+)

- Market Intelligence & Modeling Datasets
  (Github or S3)
PharmaKB web content is available through easy to interpret and integrated views:

**Drug View**
- Drug Name
  - Commercial
  - Clinical
  - Drug Entity
  - Target
  - Financial
  - Trends
  - Safety

**Company View**
- Company
  - Drug Portfolio
  - Active Trials
  - Patents
  - Revenue

**Disease View**
- Disease
  - Name(s)
  - Disease
  - Target
  - Relationships
  - Drugs
  - Related
  - Trial Drugs
  - Companies
  - Market Size
Company View: Review Portfolios

Disease View: Search by Competitors

Drug View: Detailed Product Profiles

**AbbVie**

AbbVie is an American publicly traded biopharmaceutical company founded in 2013. It originated as a spin-off of Abbott Laboratories.

**Marketed Drugs**

<table>
<thead>
<tr>
<th>Trade Name</th>
<th>Drug Name</th>
<th>Approved</th>
<th>Potent Expires</th>
<th>Indication</th>
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<tbody>
<tr>
<td>Calcitriol</td>
<td>Calcitriol</td>
<td>1996-09-25</td>
<td></td>
<td>Hyperparathyroidism, -</td>
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<tr>
<td>Cyclosporine</td>
<td>Cyclosporine</td>
<td>2000-03-06</td>
<td>2007-07-11</td>
<td>Constrictive, Corneal decor, -</td>
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<tr>
<td>Humira</td>
<td>Adalimumab</td>
<td>2002-12-31</td>
<td></td>
<td>Ankylosing spondylitis, arthritis, Crohn’s disease, inflammatory bowel disease, juvenile arthritis, Populon amnion skin disease, Psoriasis, Psoriatic arthritis, Rheumatoid arthritis, Ulcerative colitis, Lupus</td>
</tr>
<tr>
<td>Otsudex</td>
<td>Oxitotumate</td>
<td>2001-07-26</td>
<td>2022-02-29</td>
<td>Macular edema, Multiple</td>
</tr>
<tr>
<td>Rinvoq</td>
<td>Upadacitinib</td>
<td>2018-03-16</td>
<td>2029-02-26</td>
<td>Rheumatoid arthritis</td>
</tr>
</tbody>
</table>

**MeSH D001172 - Arthritis, Rheumatoid**

**At a Glance**

**Easily Navigate**

**Commercial**

**Humira, Trudexa (adalimumab)**

**Therapeutic Areas**

- Musculoskeletal diseases
- Cardiovascular diseases
- Respiratory diseases
- Infectious diseases
- Gastrointestinal diseases
- Nervous system diseases

**Therapeutic Area**

<table>
<thead>
<tr>
<th>Category</th>
<th>Coverage</th>
<th>Commercial</th>
<th>Clinical</th>
<th>Drug</th>
<th>Target</th>
<th>Sales Treatment</th>
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<td>Musculoskeletal</td>
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<td></td>
</tr>
</tbody>
</table>
Disease View:
Browse the competitive landscape for companies with commercial or trial drugs that target the same disease markets.

See Live Preview...
Company View:
Browse individual drug revenues for companies and track historical and developing drugs through clinical trials.

See Live Preview...
Drug View:
Browse drug profiles by their commercial, clinical, financial, safety, research publication, and target data. See Live Preview...
PharmaKB content is built on a **GraphQL database** which is programmatically accessible via **GraphQL API** in addition to the Application’s JSON/CSV/EXCEL/PPT downloads.

Browse [PharmaKB API Documentation](#).
Market Intelligence & Modeling Datasets

- **Medical Expenditure Panel Survey Data**
  US household market spent by drug

- **Clinical Trial Success Rate Analysis & Data**
  Likelihood of drug program advancement by disease.

- **Curated Drug Revenues**
  320 Drugs from 24 publicly reporting companies (curated)

- **Competitive Company and Drug by Indication Time Series Data**
  Profiles disease market participation over time

- **Drugs / Active Ingredients Synonyms and International Nonproprietary Names (INNs)**
  Mapping drug names across multiple sources.

- **Pharmaceutical Market Company Names Ontology**
  Mapping companies across multiple business entities.

- **Epidemiology Information (Disease population size & impact)**
  Estimating & comparing market size by disease.

- **Drug Patents and Approval Event Files**
  Detailed event data for approvals, exclusivity, and patents

Built to Generate Alpha!
PharmaKB Case Studies

Financial Analysis of Competitive Drugs
A case study using PharmaKB to compare competing commercial drugs. Financial investors and pharmaceutical industry leaders utilize the information in PharmaKB to make superior investment and product development decisions...
Read More

Method for Trend Based Forecasting of Drug Revenues
A case study using PharmaKB to predict company revenues from key indicators of research and market performance...
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PharmaKB Case Studies

Patent Cliff Analysis Support for Generic Drug Decisions
Patent termination events have a startling effect on company revenue. This case study shows FDA reported patent terminations for Rheumatoid Arthritis drugs and summarizes the timing of opportunities for generics companies to enter the market.

Read More

Tools for Clinical Trials Success Forecasting
PharmaKB clinical trial data enables calculating the likelihood that a drug candidates will successfully advance through each clinical trial and approval stage.

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PharmaKB Case Studies

Estimating a Drug Program Net Present Value (NPV)

A well-formed NPV (Net Present Value) analysis for a new potential drug can guide the overall assessed value of the drug program for licensing negotiations, acquisitions, or estimating future potential revenues. PharmaKB data includes relevant factors such as the disease population size, planned drug cost, the current stage of development of the new drug, probability of success, length of clinical trials, and the number of competitive drugs for the disease...

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Tracking Trends and Revenue (Cancer Drugs)

A case study using PharmaKB data to explore trending cancer therapies for multiple myeloma and their impact on revenues of existing treatment regimens. Overall, this case study demonstrates how PharmaKB can be used to investigate changes to the treatment landscape for a particular disease...

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Thank you!

Find us on the web at: www.pharmakb.com

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