PubPharm - the search platform for pharmacology, toxicology & pharmacy-specific literature

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PubPharm Search Platform

Innovative Search Tools

PubPharm is a free accessible pharmacy-specific search platform.
- PubPharm contains more than 55 million references
- Including 30 million Medline (PubMed) publications

Unique Characteristics

- Content beyond Medline
  - Journal articles from adjacent scientific disciplines (e.g. chemistry)
  - Pharmaceutical books (e-books, dissertations)
  - Conference papers
  - Information on clinical trials
  - Preprint data from bioRxiv, ChemRxiv and engrXiv

- Full text access to more than 50 journals (licensed by FID Pharmazie)
  - 51 Campus licences for universities with pharmaceutical institutes
  - Supported by DFG funding

- For all references in PubPharm: Availability check (personalised based on location)

- Structure search including substructure and similarity search
- Filter functions

Development of Search Tools

Linking semantic fingerprints of literature – from simple neural embeddings towards contextualized pharmaceutical networks

Artificial intelligence (AI) can be used to predict new drug-disease associations (DDA)
- Problem: How to explain DDA predicted by AI?
- Hypothesis: Network views can help understand complex associations
- Result: Network views of all related (and predicted) DDA

Process Overview

When searching for a drug substance, PubPharm returns lists of semantically related substances, diseases and genes.

Implementation in PubPharm

Network views can help understand complex drug-disease associations.

Innovative Search Tools

Drug AI learning on documents (e.g. PubMed)
Learn DDA and build network view
Search for active substance and explore learned network view

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