Data mining and analysis

Clinical Pharmacology Discovery Platform

Brief Description of Technology

Novel Approach to datamining and synthesizing Information from very large drug, disease, and adverse effects databases

TECHNOLOGY ID

2014-1104

BUSINESS OPPORTUNITY

Exclusive License or Sponsored Research

TECHNOLOGY TYPE

Digital Health

PATENT INFORMATION

Nationalized

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Technology Overview

AERSMine is a patented platform that extracts clinically meaningful information from millions of records in the FDA's Adverse Events Reporting System (AERS). It enables clinical pharmacologists and researchers to optimize drug combinations for patients, predict toxicity in clinical trials, and identify drug repositioning opportunities. AERSMine conducts high-dimensional analyses to identify patterns of differential risks, generates testable hypotheses, and identifies potential new drug uses or combinations.

Applications

- Discovering new therapeutics and candidates for drug repositioning
- Identifying precision medicine therapies for patient subgroups
- Developing safety, toxicity, and efficacy patterns
- Pharmacovigilance

Advantages

- Data encompasses the entire spectrum of human diseases and drugs and is constantly updated
- Performs ontological aggregations of drugs to extract meaningful information across classes
- Conducts high-dimensional cohort-based analyses to identify patterns of differential risks
- Identifies potential new drug uses or combinations that may reduce risk or toxicity

Market Overview

Researching, developing, and testing the safety and efficacy of millions of potential drug compounds is costly, time-consuming, and unpredictable. AERSMine could effectively advance the discovery of new drugs, identify drugs for repurposing, and detect safety issues by conducting high-dimensional cohort-based analyses.

Investigator Overview

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