Infosys Drug Repurposing Platform – finding new uses for drugs

EXTERNAL DATA SOURCES

- Gene Expression (GEO)
- Pathway Data (Reactome)
- Disease Data (MeSH)
- Chemical Structure (PubChem)
- Compound structures (Drugbank)
- Protein Structure (PDB)

+

INTERNAL DATA SOURCES

- Experimental data sets

EXAMPLEs OF MODELS

- **Transcriptome signatures**
- Compound structures
- Drug/protein interactions
- Side-effect profiles
- **Mechanisms of action**
- Next Gen Sequencing
- Nutrigenomics etc.

DEMO OF 2 MODELS SHOWN

Approach 4

Mechanisms of Action

Transcriptome

Drugs predicted by multiple approaches

Approach 3

Building Tomorrow's Enterprise