Similar to Wolfram Alpha:

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Suggested	alleries
Juggesteu	queries

Eg: the two proof of concept questions

Query:			

Explore some things this Reasoning Tool can answer:

Which genetic conditions protect from disease ____

What is the outcome pathway for drug ____ and condition ____

Which drugs are the least well studied?

Auto-complete suggestions:

Eg: data-types that we know about

Query: what genes are |

Transcription regulators

Functionally similar

Co-expressed

Explore some things this Reasoning Tool can answer:

Which genetic conditions protect from disease ____

What is the outcome pathway for drug ____ and condition ____

Which drugs are the least well studied?

Error handling:

Eg: don't know how to interpret

Query: what nonsense show high phenotypic similarity to FANCC

Sorry, I don't know how to answer that question: No available databases contain the data type "nonsense."

Error handling:

Eg: Typos

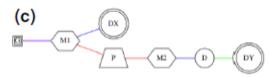
Query: which genetic conditions protect from ashma

Did you mean:

which genetic conditions protect from asthma

Processing query:

Generate a dossier of search strategies (i.e. trees returned by Markov Chain)



Grounded data type

Query: which genetic conditions protect from asthma

Result of NLP >

Input interpretation:

Find gene variants that reduce symptoms of bronchial asthma

association

Data type

Search strategy 1:

Join databases X, Y, and Z to find genetic variants that foo to bar that downregulate biz which causes asthma

Search strategy 2:

Join databases A and B to find genetic variants that baz to bif that alleviates symptoms of asthma

Search strategy 3:

Join databases C and D to find genetic variants that qux which prevents asthma

association

Processing query:

User selects a search strategy

Query: which genetic conditions protect from asthma

Input interpretation:

Find gene variants that reduce symptoms of bronchial asthma

Search strategy 1:

Join databases X, Y, and Z to find genetic variants that foo to bar that downregulate biz which causes asthma

Search strategy 2:

Join databases A and B to find genetic variants that baz to bif that alleviates symptoms of asthma

Search strategy 3:

Join databases C and D to find genetic variants that qux which prevents asthma

Processing query:

Search strategy is executed (modified Dijkstra)

Query: which genetic conditions protect from asthma

Executing search strategy...

Joining databases X, Y, and Z to find genetic variants that foo to bar that downregulate biz which causes asthma

Results:

Genetic variant X₁ protects from asthma (confidence C₁ %) Show details Genetic variant X₂ protects from asthma (confidence C₂ %) Show details Genetic variant X₂ protects from asthma (confidence C₂ % Show details

Export results to CSV/JSON

Shows:

- Full path through the Markov chain that gave this result.
- 2. Database queries used
- Results of database API calls, etc.

Showing details

Expose all the guts as to how the answer was obtained

Details for:

Genetic variant X₁ protects from asthma (confidence C₁ %)

Variant X₁ found in database X (API call here)

Database X contains content type foo (supporting info here)

Database Y contains content type foo and bar (supporting info here)

(API call to ground foo and bar)

(API call to get association from X->Y)

Search database Z to find what grounded bar downregulates what

(Result of search here)

More API calls, steps executed, biological jargon, whatever else....