

queryMed

Linking pharmacological and medical knowledge using semantic Web technologies

<https://github.com/yannrivault/queryMed>

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Health Services Research team (REPERES)**

with :

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EHESP, REPERES, IRISA Dyliss

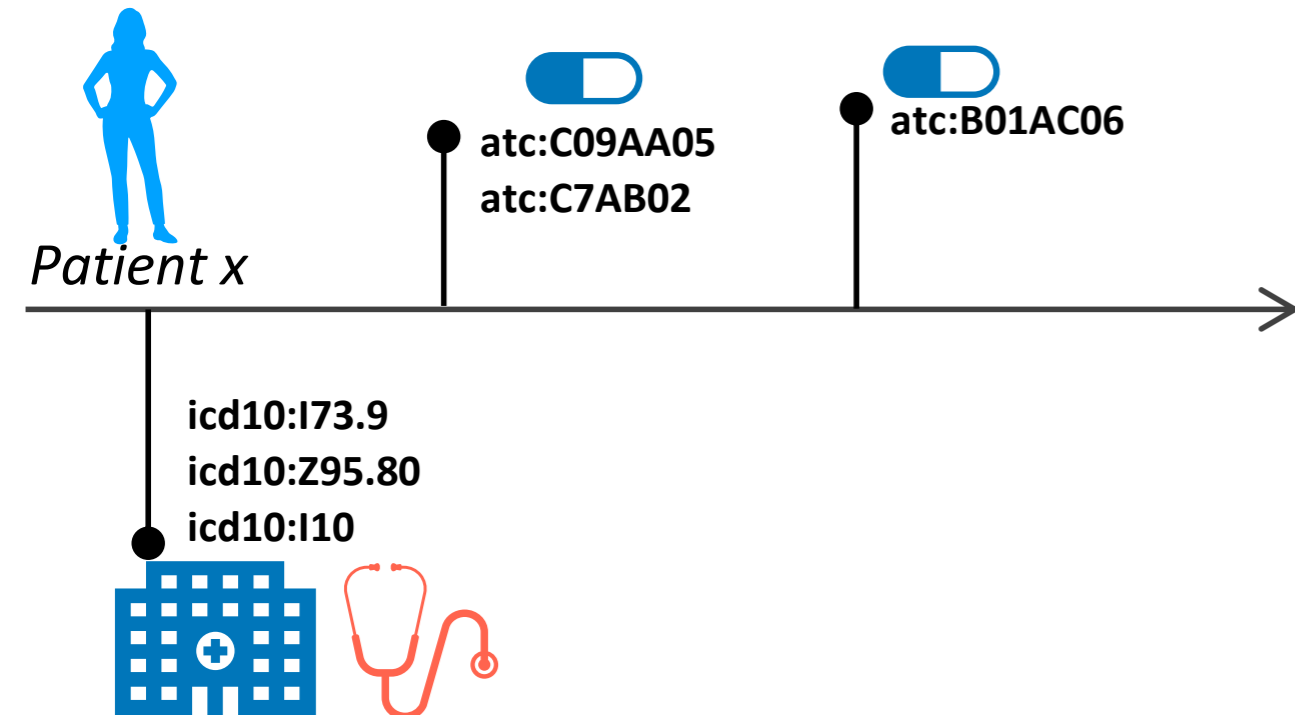
Olivier Dameron

Rennes University, IRISA Dyliss Research team



Funded by ANSM PEPS platform 2015-2019

Why queryMed?

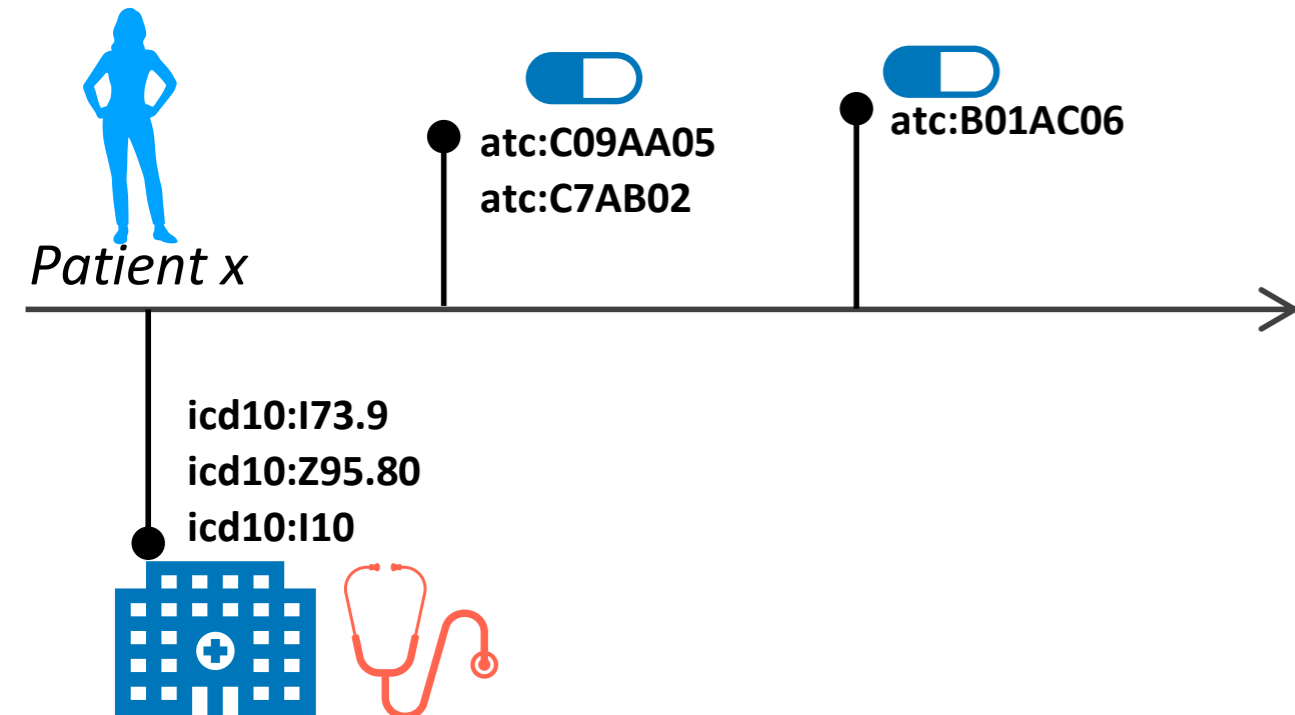


Analyse Care Pathways

- French Health Insurance data (SNDS)
- Hospital discharge data
- Ambulatory care data
- Cohorte

Field	Nomenclature	Number of Codes
Disease	icd-10	>12000
Drug	atc	>6000
Medical act (French)	ccam	>9000

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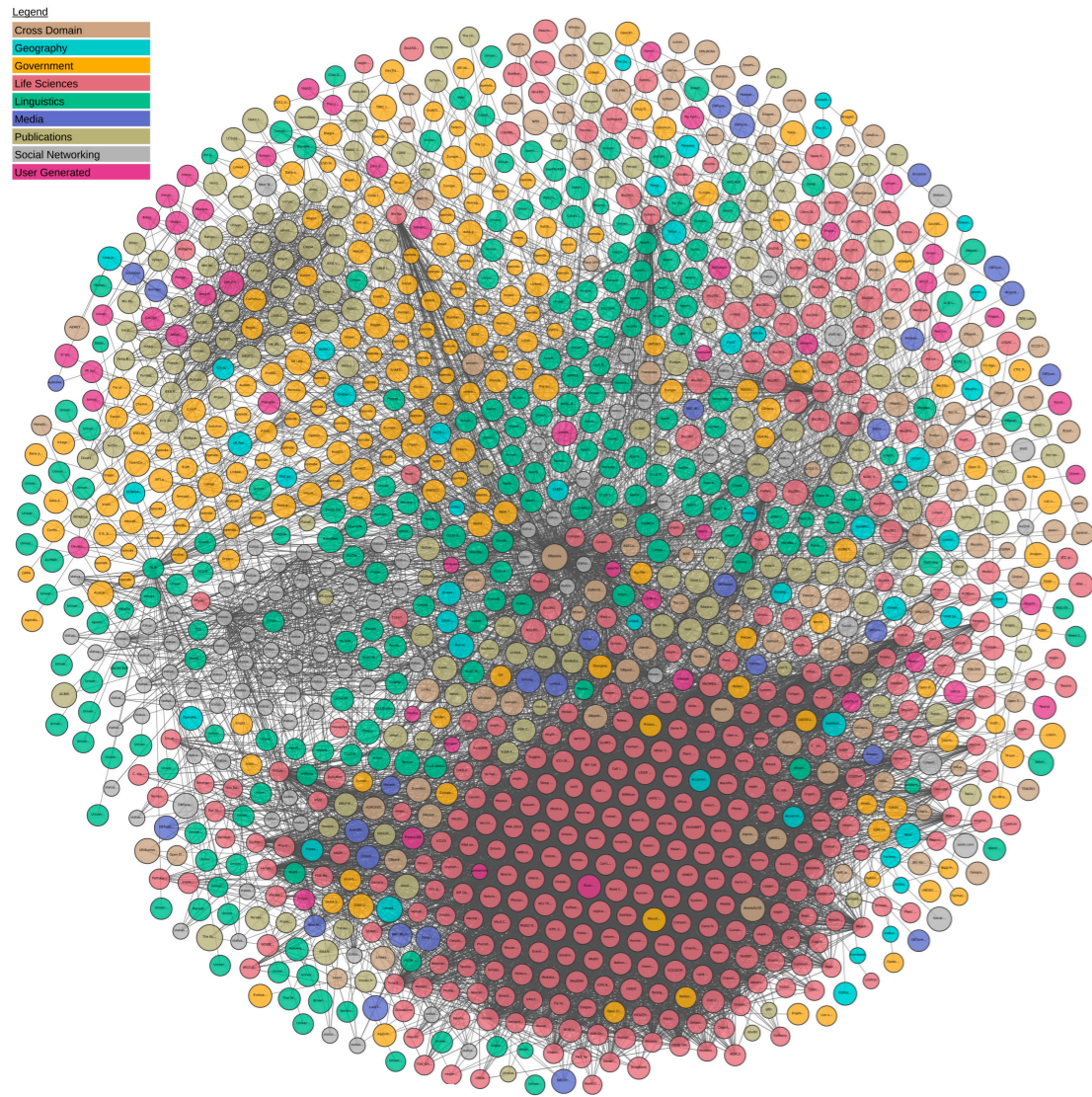


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What is queryMed?



Query biomedical Linked Data

- Ontologies
- Thesauri
- Taxonomies
- Nomenclatures

source: <https://lod-cloud.net/>



What is queryMed?



source: Tim Berners-Lee

<https://www.w3.org/DesignIssues/LinkedData.html>

Use Web semantic tools

- RDF
- SPARQL

What is queryMed?

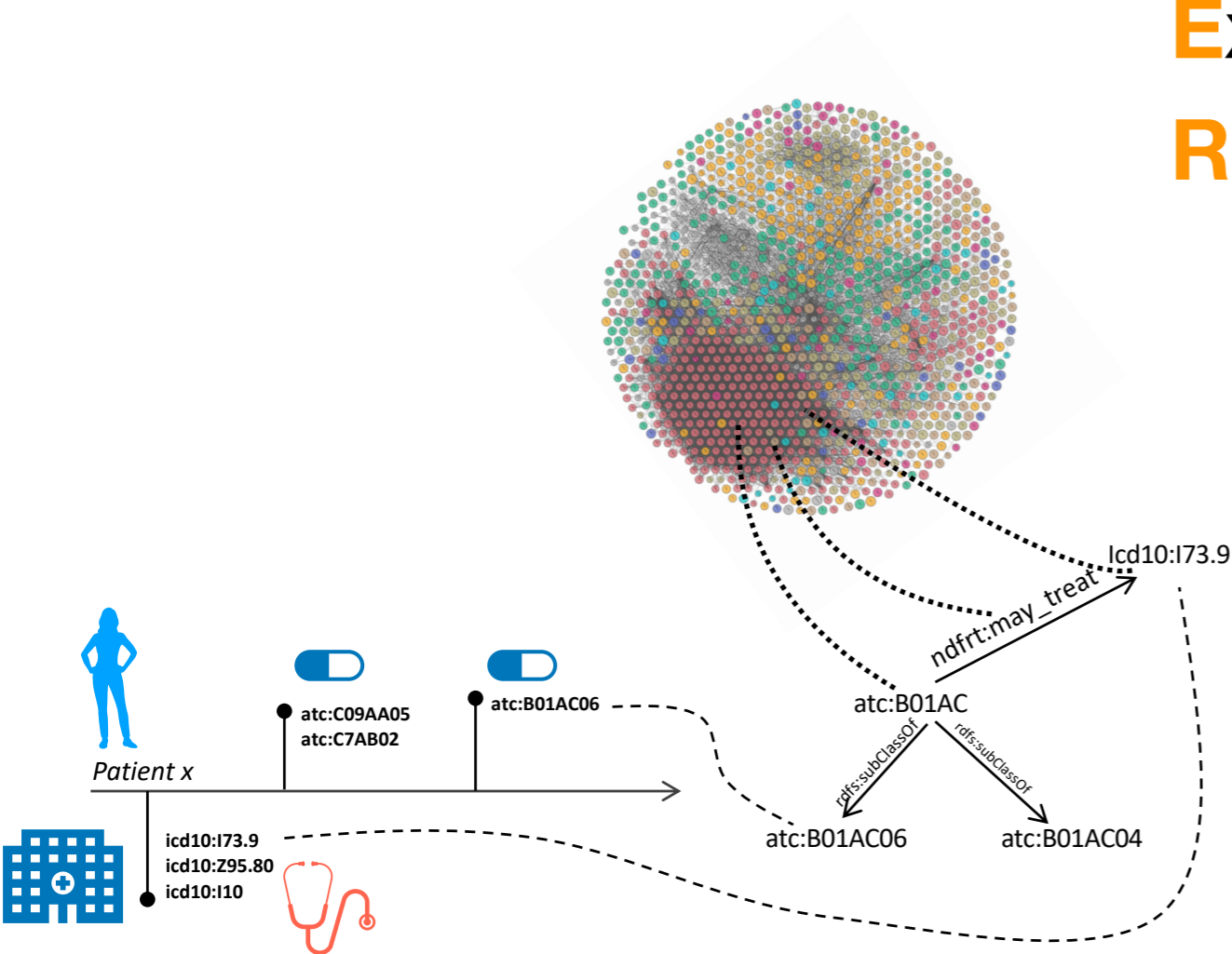
Examine biomedical Linked Data
Retrieve biomedical knowledge

- SPARQL endpoints and REST API

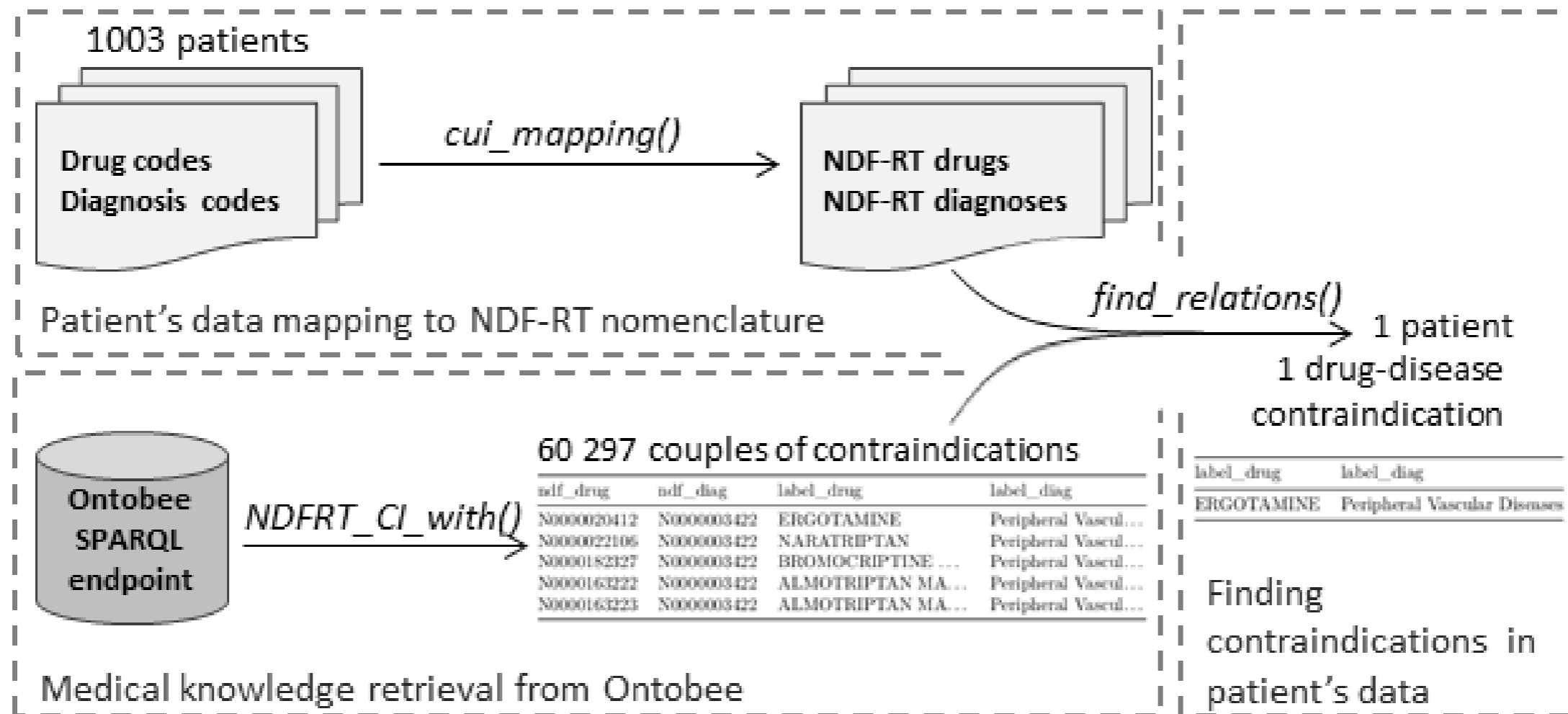
- DBpedia
- Ontobee
- Bioportal
- SIFR

- Datasets

- Drug nomenclature (ATC)
- Drug-Drug interactions (DIKB)
- Drug-Disease indications (DID)

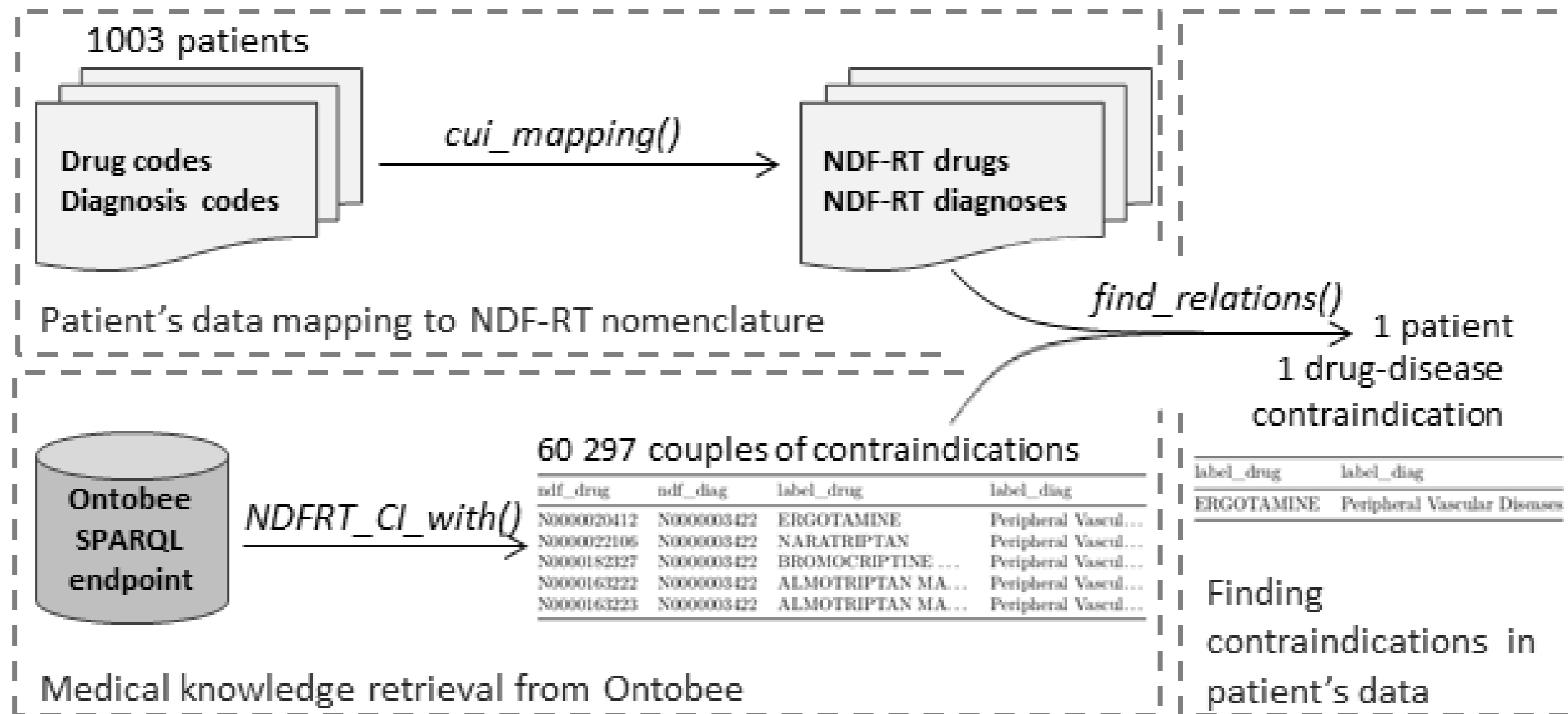


Drug-Disease contraindication surveillance



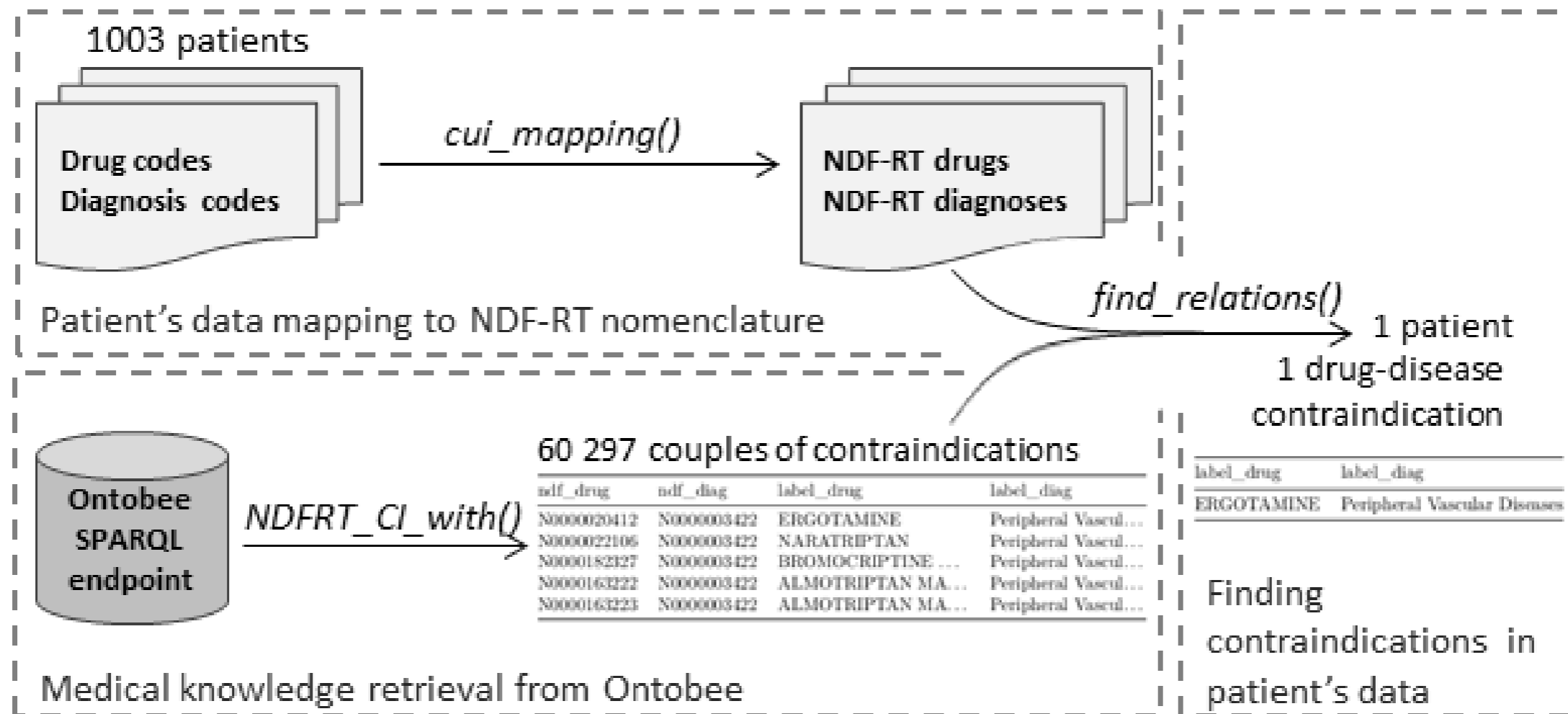
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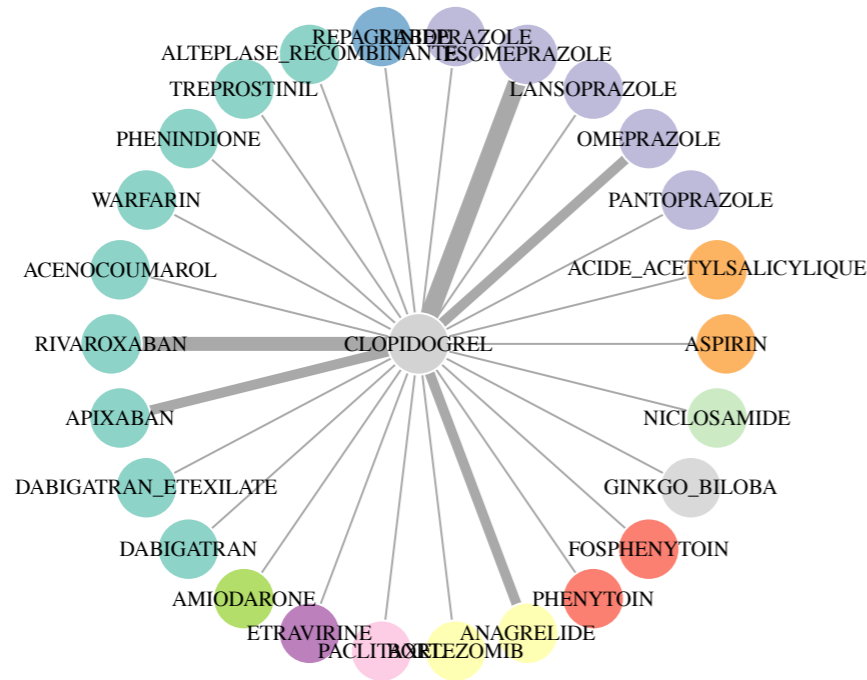
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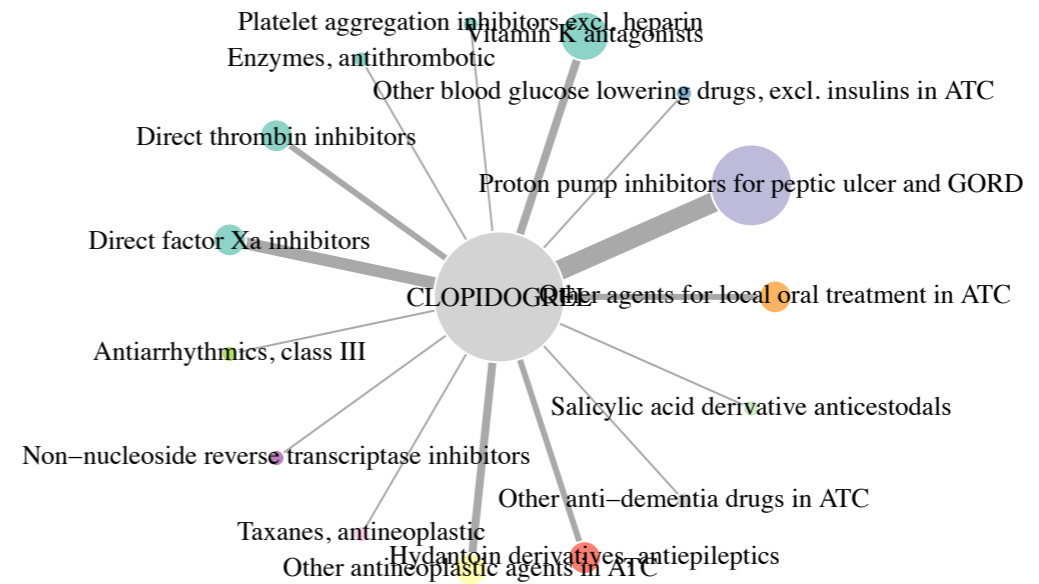
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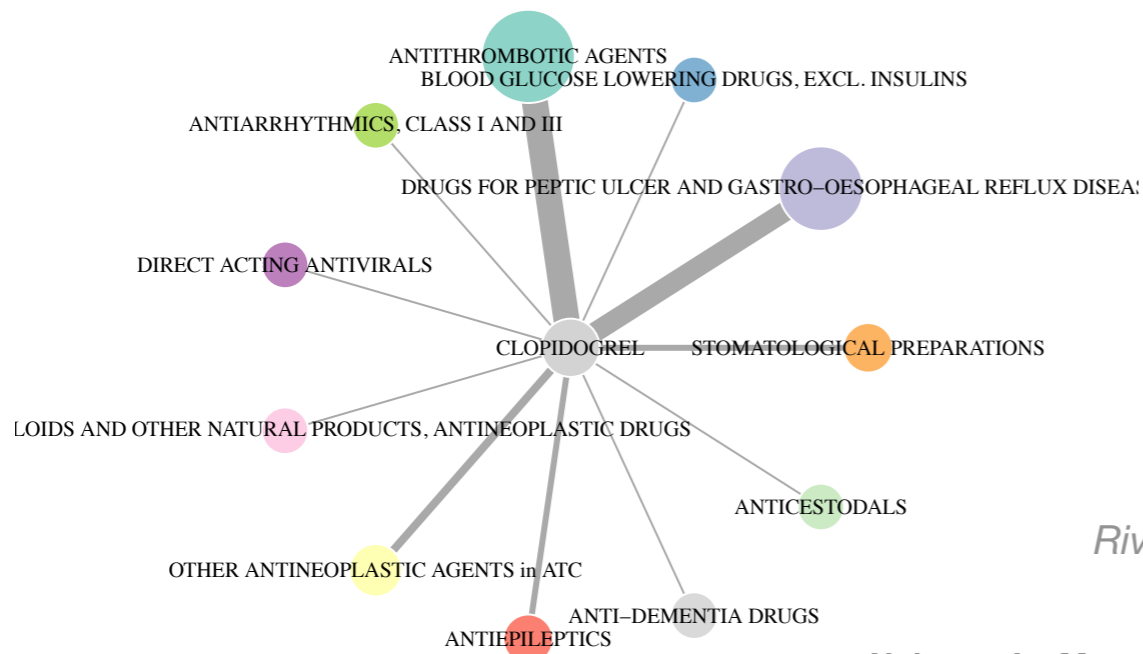
A – Drug



B – Ancestor I



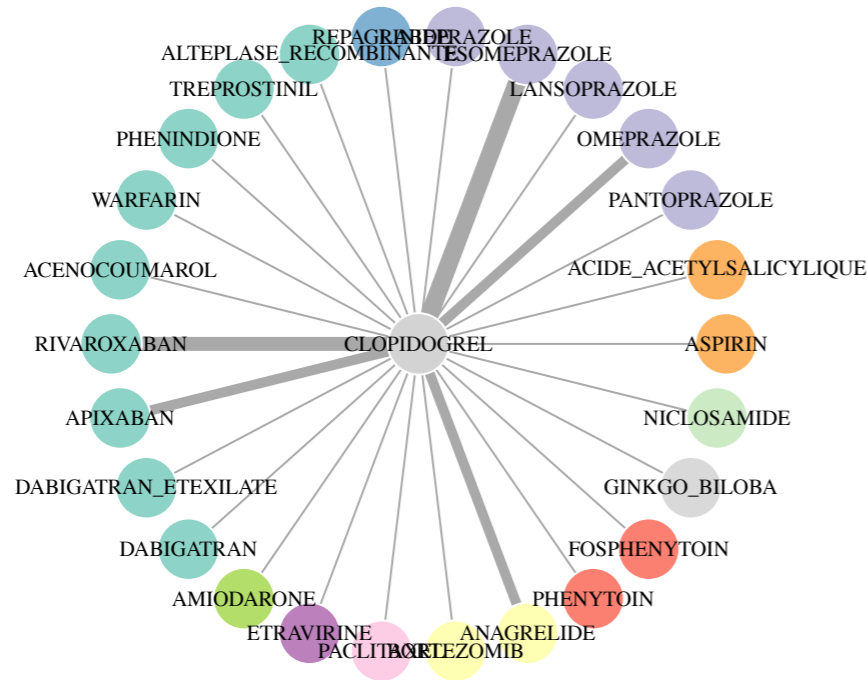
C – Ancestor II



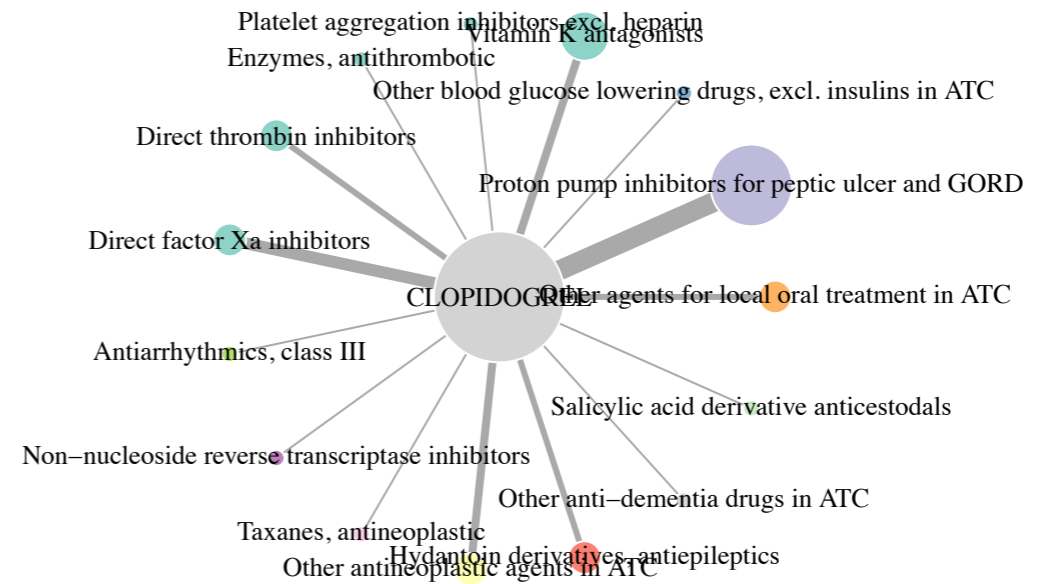
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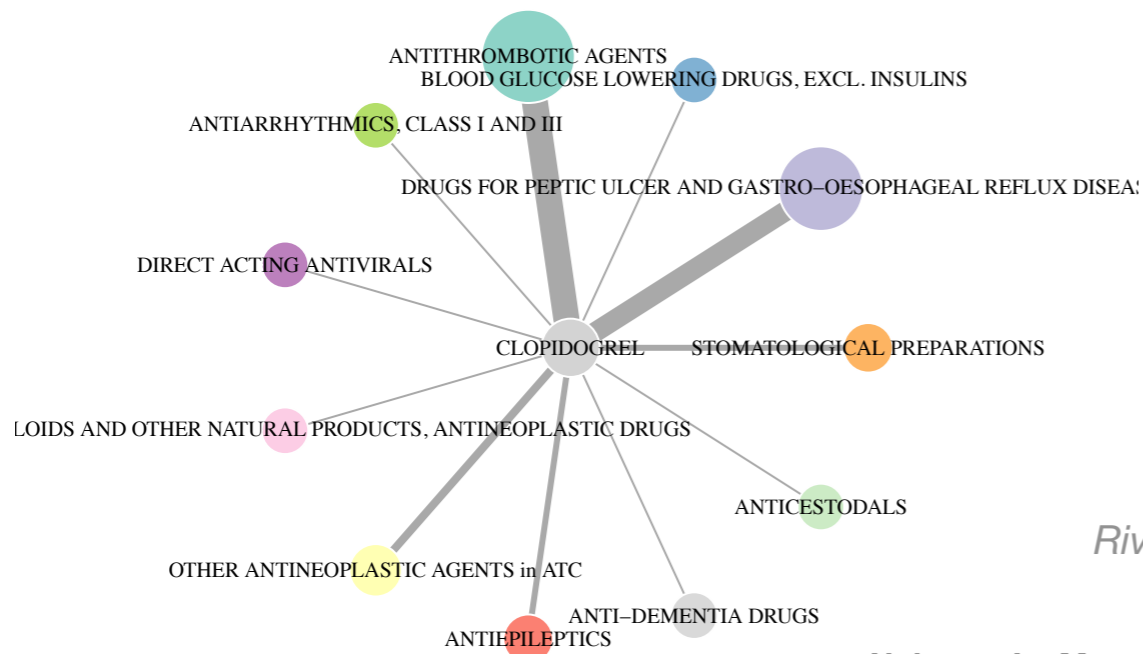
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Drug-Drug contraindication surveillance



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[source:http://digitalhealthage.com](http://digitalhealthage.com)

query biomedical Linked Data
use Web semantic tools
examine biomedical Linked Data
retrieve biomedical knowledge
your healthcare data
Map and merge
enrich data
decipher care pathways